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THE NEW YORK
JOURNAL OF MEDICINE,

AND THE

COLLATERAL SCIENCES.

EDITED BY

CHARLES A. LEE, M.D.

VOL. IV.

NEW YORK:
HENRY G. LANGLEY, 8 ASTOR HOUSE.
1845.

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TO READERS AND CORRESPONDENTS.

The premature death of the late and lamented Editor of this journal, has rendered it necessary for the Publisher to seek a successor; and whilst he is engaged in selecting one who shall be both willing and competent to undertake the arduous duties so faithfully and satisfactorily fulfilled by Dr. Forry, the care of supervising and editing the present number has been entrusted to a gentleman who consented to undertake the charge, and who avails himself of the present opportunity to acknowledge the kindness of those friends who have aided him with their valuable assistance.

We acknowledge the receipt of the following works:

New Elements of Operative Surgery. By ALF. A. L. M. VELPEAU, Professor of Surgical Clinique of the Faculty of Medicine of Paris, &c.; carefully revised, entirely remodelled, and augmented with a Treatise on Minor Surgery; illustrated by over three hundred engravings, incorporated with the text; accompanied with an Atlas, in quarto, of twenty-two plates, representing the principal operative processes, surgical instruments, &c. Translated by P. S. TOWNSEND, M.D., late Physician to the Seaman's Retreat, Staten Island, N. Y.; augmented by the addition of several hundred pages of entirely new matter, comprising the latest improvements and discoveries in Surgery in America and Europe, up to the present time. Under the supervision of, and with notes and observation by, VALENTINE MOTT, M.D., Professor of the Operations of Surgery with Surgical and Pathological Anatomy, &c., &c., &c., in 3 vols 8vo., vol. first, pp. 915. H. G. Langley: New York. 1845. (From the Publisher.)

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Philosophy of Animated Existence; or, Sketches of Living Physics; with discussions of Physiology Philosophical. To which is added a Brief account of the Middle Regions of Georgia. By John B. Gorman, M.D, pp. 570. Philadelphia. 1845.

The following Medical Journals have been received in exchange:

The Illinois Medical and Surgical Journal.
The St. Louis Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The Boston Medical and Surgical Journal.
The Medical News.
The Medical Examiner.
The Southern Medical and Surgical Journal.
The New Orleans Medical Journal.
The Montreal Medical Gazette.
The London and Edinburgh Monthly Journal of Medical Science.
The London Medical Times.
The Provincial Medical and Surgical Journal.
The London Medical Gazette.
The Dublin Medical Press.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the publisher, Henry G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of Henry G. Langley. Persons at a distance may direct parcels, paid as above, under cover of Barrington & Haswell, Philadelphia, W. D. Ticknor, Boston, and Wiley & Putnam, London.

☞ Postmasters, it will be borne in mind, are authorized by law to frank letters containing money for the subscription of periodicals.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR JANUARY, 1845.

PART FIRST.

Original Communications.

THE LATE SAMUEL FORRY, M. D.

As was anticipated at the period of publishing the last number of the *New York Journal of Medicine*, the painful task of recording the death of its distinguished Editor has become the first duty upon issuing the present number. On the ninth day of November last, in the 34th year of his age, Dr. Forry closed his short career of usefulness. The medical profession has indeed sustained a severe and an almost irreparable loss in the death of one whose valuable and efficient labors proved him to be unsurpassed in his ardent devotion to science. When we contemplate so great a loss—so sudden an arrest of all the mental energies in the midst of their activity, a painful and an indescribable sensation is produced, and the occurrence we so greatly deplore, appears to our limited view untimely and premature—as an untoward accident to some portion of the great moral machine, whereby its movements are impeded and deranged, and which time and circumstances, beyond our control, only can again set in order.

Dr. Forry was a native of Gettysburgh, Pennsylvania. He pursued his professional studies under the direction of Dr. Fahnestock, and received his degree in medicine at the University of Pennsylvania. For some years he held the office of surgeon in the U. S. army, and during his sojourn in Florida, in the late war in that territory, he made many interesting observations upon its climate. He afterwards compiled from these observations, and others made by the surgeons at the different military posts, under the direction of Dr. Lawson, surgeon-general of the army, the "Meteorological Register," and "Statistical Reports on the Sickness and Mortality in the Army;" both of which were published as the official reports of the medical department of the army. The numerous facts contained in these works, with others which he collected, were afterwards used in the preparation of his work on the "Climate of the United States and its Endemic Influences." This work obtained for him a high and well deserved reputation, both in his native country and among scientific men in Europe. Numerous papers also have been published by him in "The American Journal of Medical Sciences," at Philadelphia, and "The Boston Medical and Surgical Journal;" while many other periodicals, not strictly devoted to scientific subjects, were enriched by contributions from his pen. The "New York Journal of Medicine" bears its testimony to his persevering industry, his patient research, and his capacious and discriminating mind. Every number is indebted to him for a considerable portion of its original matter, either in the form of an essay or in extensive analyses of books. The Boylston Prize of the Harvard University, for the year 1844, for the best essay on "The Protective Powers of Vaccinia," was awarded to him, and appeared in the number for September last. During the present year, he was unremittingly engaged in completing a work, still in manuscript, of vast erudition and research, entitled "The Development of Man's Faculties, and The Laws of his Mortality and Reproduction, viewed in their relation to Hygiology," more fully illustrating his views of climate. It was his incessant and laborious application to the last mentioned work, that induced the fatal malady which so prematurely closed his labors. Not even sickness could induce him to relinquish his studies; and his last act of literary labor, when scarcely able to sustain the necessary position for such a duty, was to correct the proof-sheet of his article upon "The nature and history of Vital Statistics," in the preceding number of this journal, which he had privately obtained from the printer, contrary to the advice of his medical attendants.

To the most unwearied industry in scientific pursuits, was added a remarkable power of discrimination; and his ability to arrange, digest and condense a vast amount of isolated facts, to illustrate an important point, is a prominent characteristic of his work on climate.

Dr. Forry possessed a singularly mild and amiable disposition, which led him to avoid any unkind or censorious observations; and often has the writer remarked his silence, in the place of uniting with others in any expression of disapprobation. In no instance was this deportment more marked than when suffering from any unjust personal accusation, and the most virulent denunciation could not force from him an unkind expression.

Among his traits of character, there is none more worthy of special remark than his unaffected modesty. He appeared almost unconscious of the abilities he possessed. His views were always given with the simplicity of a truly philosophical mind; he assumed nothing as due to any method of investigation which he might claim as his own, but his deductions were stated as the direct and plain results of the facts he had collated. How beautifully attractive is true modesty when united with high intellectual endowments; it is an ornament which imparts an indescribable charm to genius itself, and is the beauteous garb which completes our admiration. That stately pride of the forest, so conspicuous among its fellows by the vigor of its ever-during verdure, is rendered more attractive when covered with the modest beauties of the spring, and its fragrant blossoms of purest white win for it an admiration, which, in its simple grandeur, might scarce have been awarded.

From this imperfect sketch, it would seem that some more than ordinary token of respect is due to the memory of this devoted friend of science, from that profession for which he so efficiently labored; and it is gratifying to see how prompt has been the response to the suggestion that an enduring memento of esteem should be erected over his remains, at the Greenwood Cemetry. There exists, indeed, an imperishable monument to his fame, but it is one of his own rearing—and he died in completing the structure. Let those whom he has honored by his self-devotion to the objects of their common pursuits, exhibit their sense of his merits by also erecting one, even if it be less durable than the works which it is intended to commemorate. J. S.

Art. I.—*Epilepsy terminating fatally ; with hypertrophy and induration of the cerebral substance, induced by excessive mental application* ; being a history of the case of the late Samuel Forry, M. D., Editor of the New York Journal of Medicine and Surgery. By Charles A. Lee, M. D., Prof. of Mat. Med. and Pathology, in Geneva Medical College.

To the Editor :

Dear Sir :—I send you according to your request, the following notes relating to the illness of our friend, the late editor of the New York Journal of Medicine and Surgery, Samuel Forry, M. D., and I much regret that they are necessarily so imperfect. As I kept no record of the early history of the case, I have been obliged to trust to memory for the particulars, and it is very probable that, as relates to dates, I may not in every instance be correct ; but I trust that the striking features, and most important points, are detailed with sufficient accuracy. During the last few weeks of Dr. Forry's life, I was out of town, and am indebted to Dr. James Ashley, who kindly assented to attend him in my absence, for the particulars during that period ; and I take this opportunity of publicly expressing my obligations to Dr. Ashley for the faithful and unremitting kindness and assiduity manifested by him during a protracted attendance upon the deceased, both by night and day, as well as for the valuable notes of the case, which he has obligingly furnished me.

I am, very respectfully yours, &c.

Charles A. Lee.

Dr. Forry was of German descent, and inherited a scrofulous constitution, and a highly nervous temperament. His frame was slight and delicate, and he had formerly suffered much from attacks of bronchitis and rheumatism. In October, 1836, when he joined the United States Army, at Tampa Bay, Florida, his constitution was much enfeebled by chronic bronchitis, complicated with a disordered state of the digestive organs. In 1834, he also suffered from a severe attack of hœmoptysis. Having spent the winter of 1836 in active service in the field, exposed to the hardships of an Indian campaign, sleeping for many nights successively in wet blankets on a marshy ground, he not only suffered no detriment to his health from such a mode of life, but on the contrary found himself in the spring of 1837 restored to vigorous health, having gained 20 lbs. in weight. By remaining, however, in the interior of the Peninsula during the ensuing summer, he lost this excess of weight, notwithstanding his health remained good. Having spent the succeeding winter in the same region, he continued to improve; and early in the summer he came as far North as the Cherokee nation in Tennessee, and late in the fall to Washington city. The advantages thus realized from a benign climate, were, however, purchased at the expense of a predisposition to severe acute rheumatism, which returned with more or less severity every winter since.*

Dr. Forry resigned his medical situation in the army in 1841, and immediately took up his residence in this city, for the practice of his profession. His health, at all times delicate, was particularly so during the winter season, and the first year he resided here, he was confined to his room for several weeks during the cold weather, by a severe attack of rheumatism. His health, however, improved, so that during the greater part of the years 1842 and 1843, he was able to attend to his professional duties, and perform an immense amount of literary labor, although troubled at times with rheumatic symptoms. During the summer of 1843, a part of which he spent at Rondout, investigating the character of the epidemic fever that prevailed at that place, and the fall of the same year, his application to study was severe and unremitting; nor was it less so during the winter and spring of 1844, his studies being generally protracted till three o'clock in the morning. Unfortunately, he took but little exercise, and paid no attention to his mode of living, nor did he conform in his own practice to those rules of hygiene, of which no one better understood the value, or could more judiciously recommend to others.

In the month of June, 1844, he began to complain again of dyspeptic symptoms, and would throw up part of his food after eating; he was also, at times, troubled with severe head-aches and vertigo, and incapacity for study. These symptoms increased upon him so that he almost invariably vomited his food soon after finishing his meals; his memory also seemed to fail, and he was sometimes apparently at a loss to recognize his most intimate friends. He was also unable to sleep; his skin assumed a deadly white or leucophlegmatic hue; and the face, at times, appeared somewhat puffy; the appetite, however, continued tolerably good, although he was unable to retain all his food. His mind, which had for some months been peculiarly depressed, in consequence of heavy pecuniary losses and other misfortunes, and disappointments, grew more and more gloomy. At times, he was extremely agitated with groundless fears and apprehensions; till at last there was danger of confirmed melancholy, or even insanity, unless the causes, which were partly of a physical and partly of a moral kind, could be promptly removed. About the middle of June, he had what was called a fit, doubtless of an epileptic character, in the reading-room of the Astor House, falling to the floor in an insensible state, in which condition he remained a few minutes, when he revived, and was able, with assistance, to walk home. Previous to this, he had often consulted me in relation to his health; and I had always enjoined on him the necessity of relaxing his studies, paying peculiar attention to

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*See his Work on "*The Climate of the United States,*" p. 259.

his diet; to use cold sponging and the shower bath every day, and excursions to the country as often as he could get away. In addition to this, I had some time previously put him upon the use of a pill made of extract of gentian, blue pill mass, and extract of hyoscyamus. He had taken this medicine with some benefit; but I have reason to believe that the other directions were not followed. He sent for me, soon after the fit at the Astor House, and I found him extremely agitated; head very hot:—said, with his present feelings, he could not and did not wish to live; that he could get no sleep, that his mind was failing, &c. I advised him to go the Springs and spend a few days, and try to get his mind more composed. He went to Saratoga and stayed two days, about the 4th of July, and returned quite as bad as when he went away. Notwithstanding, however, the state of his mind and health, he continued his application to study, and spent more than half the night over his books and papers, being very anxious to complete his last and greatest work, on "Vital Statistics," which had occupied his attention for the last eighteen months. As it was difficult to control his diet at the Franklin, where he boarded, I invited him to my house, about the tenth of August, and he stayed with me between two and three weeks, during which time his health manifestly improved, his stomach retaining all his food, which had not been the case for many months. His mind also grew more cheerful, and I had great hopes of his eventual recovery. He was then getting out the September number of his journal, in which I aided him, as he was unwilling to trust himself in writing anything. At times, his memory seemed entirely gone; he could not recollect what transpired from day to day, or from hour to hour; and on the 15th of August, he fell from his chair, at the house of a patient of mine, whom he was visiting with me. He was but very slightly convulsed: pulse full, extremely feeble, face pale, and eyes closed. It seemed more like a fainting fit than an epileptic convulsion, though it doubtless was of this character. He revived, in a few minutes, by the application of stimulants and cold water; but it was several hours before he fully recovered. Consciousness and memory seemed entirely gone for an hour or two, and were not fully restored to their former condition for two or three days. He continued with me for some time after this, and gradually improved; had I then been able to take a trip with him to New England, as I had done the previous summer, and as I was anxious to do, I cannot doubt but that it would have been of essential service. But circumstances prevented my leaving. About the first week in September, Dr. Forry took private lodgings in a quiet situation, in Duane street, and it was confidently predicted that he would be benefited by the change. On the 16th of September, however, he was suddenly seized, after eating a hearty dinner, with violent epileptic convulsions. He had a succession of strong fits, each lasting from five or ten to thirty minutes; during which he struggled very violently, the various muscles twitching irregularly, producing great distortion of the features; the face being turgid and somewhat livid; respiration extremely embarrassed and difficult; foaming at the mouth, &c. During the intervals, he lay in a perfectly comatose state, with stertorous breathing, &c. Dr. Alexander E. Hosack and Dr. James Ashley met me in consultation. The usual treatment in such cases was resorted to; the feet immersed in hot mustard water, and a stimulating enema administered, &c. The fits still remaining, after the lapse of three hours, a vitriolic emetic was got down, which produced free emesis, and the convulsions, of which there had been about ten distinct paroxysms, immediately ceased. After the lapse of a couple of hours, a calomel cathartic was given (grs. x.), which operated freely. He, however, lay in a state of insensibility for two or three days, his stools passing from him evidently without his notice or volition. Dr. Detmold was now called in consultation, and it was agreed that a blister should be applied to the head, the hair having been shaved off, and sinapisms to the lower extremities, &c. About the third day he rallied from his comatose state, and became sleepless; which state continued for about four days, in spite of all the means used to procure sleep.

During much of this time, his mind was very incoherent; he expressed great fear of personal injury; often expressing suspicions of violence and poisoning; (I should have stated that he had been cupped once, by my direction, upon the temples in the month of July, and by the advice of Drs. J. W. Francis and James Stewart, he was bled to the extent of about eight ounces, in the fore part of September) sleep was, however, at length procured by the endermic application of morphia to the scalp, and afterwards the administration of calomel and opium, which was continued as an anodyne and alterative, with the occasional use of the compound decoction of aloes, as a cordial laxative. The calomel having been omitted for a day or two, depending on enemata for moving the bowels, the tongue became dry, the bowels constipated, the skin more husky, &c., which symptoms were promptly relieved by giving small doses of calomel. Dr. Forry improved evidently both as to his bodily and mental condition, so that his friends were much encouraged; during this interval he was visited by several physicians of his acquaintance, who found him perfectly rational, and apparently convalescing. He was able to write notes on business, give advice to a patient going South, and endeavored to make arrangements for visiting Europe, expressing a full belief that such a tour would be the means of perfectly restoring him to health. I took leave of Dr. Forry on the 26th of September, with a painful apprehension that I should not see him again. After continuing to improve, under the treatment of Drs. Stewart, Ashley, and Detmold, until about the middle of October, his mental faculties once more began to fail, his bowels grew more torpid, and on the evening of the 21st, he had a slight convulsion—The last named gentlemen, from circumstances which need not be related, now withdrew, and Drs. Beck and Parker were requested by the friends to attend in consultation with Dr. Ashley.

Oct. 22d.—Pulse 92; tongue coated in patches, skin dry, and scaly; some strangury and hemorrhoidal pains, with occasional delirium, a mild tonic and supporting treatment was recommended, of animal food, porter, &c. This plan was not, however, pursued for any length of time. A pill consisting of one gr. each of blue pill and aloes, was ordered to be given three times a day as a laxative and alterative. He ate of beefsteak for dinner, and tea and toast for supper. Had a thorough ablution all over; ordered the room to be kept dark, and quiet as possible.

Oct. 23d.—Rather more rational than yesterday, pulse 82. Has had some pain in the bowels during the night. Took beef-steak and coffee at 8 clock A. M.; mutton chop and potatoes for dinner; had no appetite for supper; one pill night and morning; at 8 P. M., complained of sickness at stomach and heavy eructations. R. Aquae ammoniae, potassae carb. aa. two drachms. Of this a tea-spoonful was given in a little water which afforded immediate relief.

Oct. 24th.—Has had a bad night; became noisy between 11 and 12; got up and declared he would have his pantaloons, and was for going into the street. At 1 P. M. pulse 100, and a good deal excited; prescribed one drop croton oill.

Oct. 25th.—Dr. F. has had no memory for the last five days, has not been able to call any of his acquaintance by name; got up and dressed. Pulse 75, calm; took panada for breakfast, which he said he relished much; says he knows his physicians, but cannot call them by name. 9 P. M. pulse 70; quiet; sleeping well and easy; took tea and toast for supper; has had no meat to-day, although he expressed a desire for it; said it was a shame that a man who owned a silver tooth-pick as he did, should be deprived of meat to eat; took a wine glass of the following infusion. *R. Rad. Colom.* ʒij. *Carb. Sodae,* ʒj. *Rad. Rhei, Lig. Quassiœ* a a. ℥ss. *Cascarillae* ʒi. *Cinnamomi* ʒj. *Aquae bullientis* ℥xii. *Ft. Infusio.*

Oct. 26th.—Much as yesterday; 9 P. M. took meat and soup for dinner; during the afternoon became excited; complained of pain in his head; eructations of wind; took bitter infusion three times during the day; as the head was hot, cold cloths were applied to it; bowels had been moved, but the mental excitement continued,—incoherent.

Oct. 27th.—Has had no sleep; held on to the hands of the nurse all night; fatuous expression of countenance; pulse low and feeble; took tea and toast, which was followed by flatulence, for which the absorbent mixture was given; soup for dinner; tea and toast for supper; bitter infusion three times a day; alvine evacuations regular and natural in appearance; had him washed all over in suds; pulse 85 at 8 P. M.; feels comfortable; had tea with the family, and said he thought he would have a good night's sleep.

October 29th and 30th. Dr. F. sleeps quiet, lives on a very spare and slight diet—takes the bitter infusion and pills occasionally—is washed every other day with warm soap-suds—manifests some anxiety about himself—says he is not in his right mind—has no recollection of late events—is daily improving, however; bowels perfectly regular—complexion changed from a sallow, cadaverous appearance, to one quite clear and healthy—takes the bitter infusion three times daily—strict attention paid to diet.

November 2d. Still improving—eats and sleeps well—takes his meals with the family, and amuses himself by playing at draughts, dominoes, &c. —at times somewhat excited—gains flesh—intellect improves.

From this time the Doctor kept steadily improving, to the time of the election, when he voted at the polls. The medicine had been omitted, and there is good reason to believe that too little attention was paid to his diet, and to keeping his bowels regular, on the part of the nurse.

November 8th. Dr. F. had another severe attack of epilepsy, with the same symptoms as already described—sinapisms to the extremities, cold to the head, &c. &c., were employed; also some Croton oil, which produced speedy and free evacuations from the bowels. He had four paroxysms in the course of two hours; but after the cathartic had operated, his stertorous breathing left him, and he lay apparently without pain or consciousness, until about 8 o'clock, A. M., when he expired without a struggle or a groan.

Post-mortem Examination; about six hours after death. By Dr. Swett.

"On removing the skull, but little blood flowed from the sinuses of the dura mater; trifling sub-arachnoid effusion; moderate venous congestion of the convexity of the brain ; old adhesions of the membranes over the tentorium on the right side ; a small quantity of serum in the occipital fossa ; membranes adhering to the cortical substance with unusual firmness ; substance of brain presenting about the usual number of bloody points, but *unusually firm throughout*, both cortical and medullary matter. The interior of the skull on the anterior and lateral portions presented numerous depressions, corresponding in form to the convolutions of the brain, and in these portions the bony structure was evidently thinned.

These and the other phenomena above-mentioned, render it altogether probable that a considerable degree of hypertrophy of the brain existed."

A few tubercles were found in the lungs. Heart large but natural. Stomach small, but healthy. Other organs not particularly examined.

Remarks.—The symptoms during life, as well as the pathological appearances, lead us to infer that the disease was organic, consisting in hypertrophy of the cerebral fibres ; this condition giving rise to the train of symptoms, including the epileptic convulsions already described. Dr. Forry possessed great susceptibility, and was powerfully affected both by moral and physical causes. His face was uniformly pale and sallow ; the veins small ; his pulse feeble but easily excited. It was not easy in every instance to determine accurately what was the exciting cause of the epileptic paroxysm, although I have no doubt that it was generally induced by gastric irritation, caused by errors in diet, either as regarded quantity or quality. The symptoms, during the fit, were those described by all practical writers on Epilepsy. Dr. Forry was bled but once, and then only about eight ounces. The blood was thin and pale, and wanting in red globules, as well as albumen. The immediate cause of death was, in all probability, nervous exhaustion. The heart ceased to beat, from a want of that due supply of nervous power, on which the rhythm, or healthy play of all the functions, incessantly depends.

A few remarks on cerebral hypertrophy may not inappropriately close this hastily-written communication.

The only authors who have called attention to hypertrophy of the brain are MM. *Andral*, in his "*Medical Clinic ;*" *Bouillaud*, in his "*Treatise on Encephalitis ;*" *Danc*, in a paper on the subject in the "*Repertoire d'Anatomie Pathologique*," 1828 ; and *Scoutetten*, in the "*Archives Génerales de Médicine*," vol. 8, p. 31.

Cases of simple hyperœmia of the brain are not unfrequently met with, where the parts are tumefied : but in these instances there is increased vascularity, giving rise to an unnatural degree of redness ; whereas, in all the cases of hypertrophy that have as yet been reported, the brain either retained its usual appearance as to color, or was remarkably pale. Such was strikingly the fact in the cases reported by the authors above named. In cerebral congestion, if we slice the brain carefully, we shall perceive a great number of red points, which are the orifices of blood-vessels, and in some instances we find them so densely collected as to occasion bright red spots of different sizes. In hypertrophy, these appearances are absent.

The question then occurs, will simple congestion of the brain, even if habitual and of long duration, if such a state of things be possible, give rise to hypertrophy ? Andral thinks not, and states that he has examined the brains of many individuals who had for a long time been subject to cerebral congestion, without meeting with hypertrophy. Dr. Forry had not been subject to excessive determination of blood to the head, or to any congestion, to that degree as to occasion unpleasant symptoms. A review of all the facts, however, on this subject will justify us in the conclusion, that very great activity in the exercise of the cerebral functions will often give rise to hypertrophy of the organ, exactly as we find to be the case with every other organ of the body. In enormous eaters we always meet with hypertrophy of the stomach; if there is an obstacle to the circulation of the blood, hypertrophy of the heart results from the increased labor thrown upon this organ; if any of the muscles are exercised more than the others, as those of the arm in the smith or the stonecutter, they also become hypertrophied, and this law pervades every part of the organism. The brain forms no exception to the law.

In ordinary cases, as of children, and to the period of maturity, the parietes of the cranium enlarge in proportion to the development of the encephalic matter. The latter does not encroach upon the former to that degree as to constitute a pathological condition; the growth of the cranium being regulated by the same laws, and proceeding *pari passu*, with that of the other parts of the body.

Andral has observed that although the brain in becoming hypertrophied tends to occupy a greater space, the cranium, or bony case enclosing it, does not always increase in size, and in consequence the brain is subject to a greater or less degree of compression. It is easy to conceive that under such circumstances, slight hyperæmia suddenly occurring, might give rise to serious consequences, such as epilepsy, or apoplexy. And it is a remarkable fact that in nearly all cases of hypertrophy of the brain hitherto observed, where the cranium has not enlarged in proportion to the cerebral development, epilepsy, or some other serious disturbances of the intellect, sensation, and motion, have been the result. In the case of Sir Walter Scott, the cranium was found much thinner than natural, and it is probable that he labored under cerebral hypertrophy; although the immediate cause of death was ramollissement of a portion of the *corpus striatum*, giving rise to hemiplegia.

Andral states that some patients laboring under this affection were reduced to a state of real idiotism; others manifested a dull state of intellect, which increased and diminished alternately; then acute delirium was seen suddenly to supervene, or profound coma, and these two phenomena were soon followed by death. In one case signs of mania appeared.

In other cases headaches, vertigo and dizziness were the prevailing early symptoms, or the sensibility became suddenly more obtuse and eventually altogether abolished. In nearly every case observed by him, epileptic convulsions sooner or later occurred, which carried the patient off. There is certainly a remarkable similarity in the symptoms and history of Dr. Forry's case, and some of those related by Andral, under the head of hypertrophy of the brain.

In conclusion, I may observe that this case seems to show, what will be acknowledged by all, who have paid any attention to the subject, how little is yet known of the pathology of the brain. By some, Dr. Forry's disease was called softening of the brain; others believed that a tumor was growing at the base, or some other part of the organ; others regarded it as a pure case of nervous exhaustion consequent on mental application; and others still looked upon it as a gastric affection, and the cerebral symptoms merely sympathetic. In short there were as many opinions as there were doctors, and these were not few. No one, however, can doubt that the case would have, sooner or later, terminated fatally, had its true nature been well understood from the first, as the treatment would not probably have materially varied had its pathology been clearly revealed during the life-time of the patient.

Art. II.—*Case in which the Right Subclavian Artery was tied just as it passes the Scaleni Muscles, for an Aneurism of the Axilla, from a Gun-shot Wound.* By Valentine Mott, M.D., Professor of Surgery in the University of New York.

C. R. M., aged thirty-five years, by trade a machinist, of Kingston, Ulster county, New York, of a bilious temperament and sober habits, whilst on a hunting excursion with a friend, had occasion to pass through a thicket, and, in the act of stooping to clear away some bushes which impeded his progress, the gun of his friend accidentally went off, lodging its contents (buck-shot) about the inferior angle of his scapula. Two of the balls passed obliquely through the axilla, and were extracted from the anterior portion of the arm; twelve had been previously removed by means of poultices, from about the place of entrance; two were still to be felt under the integuments, below and about the middle of the clavicle.

At the time of the accident the patient was not stunned, nor did he experience a sensation of numbness in any part of the arm. In the course of a few hours, however, a tumor began to appear in the axilla, and continued to increase until the third day, when, for the first time, pulsation was detected. It was not until the sixth day, when, after a paroxysm of pain, extending through the whole arm, and so excruciating as almost to render him frantic, that he experienced a sensation of numbness through the entire limb. The paroxysm lasted about one hour, during which time he was obliged to take over one hundred drops of laudanum.

This was followed by an œdematous swelling of the arm, obliging him to sleep seated in a chair, with his arm placed on a pillow before him. The paroxysms of pain returned for two successive days at about the same hour, with the same violence, and lasting about the same length of time. This was followed by a violent burning sensation in the palm of his hand, which continued until some time after the operation was performed. This was the only sensation that remained in the whole limb.

He was now brought to the city and placed under my care, being the twenty-second day from the time of his receiving the injury.

On my first visit, I found the œdema to extend from the shoulder to the extremities of the fingers. So great was the extravasation in the axilla, that the circumference of the upper part of the arm was found to be about twenty-eight inches.

On the day of the operation (11th of April, 1844), the condition of the arm was such as clearly showed that no time was to be lost. The cuticle was detached to a considerable extent on the most prominent part of the tumor in the axilla; the skin was cracked, and from it there oozed a thin sanious fluid. In short, it presented the appearance of a slough, produced by the application of caustic.

Operation.—The patient being seated in a chair, with his arm and shoulder depressed as much as the condition of the parts would admit of, an incision of about three inches in length was made through the skin, extending from the anterior border of the sterno-cleido-mastoid muscle one inch and a half above the clavicle, in a direction downwards and outwards towards the acromion process of the scapula. The superficial fascia and platisma myoides being successively exposed and divided, a mass of extravasated blood was brought into view, which entirely obscured the subjacent parts. On the patient making attempts to swallow, a prominent line, extending in a direction upwards and inwards, was observed in this confused mass, which, after a little dissection, proved to be the omo-hyoid muscle, but of a much darker color than natural. The deep cervical fascia being now cut through, the subclavian artery, accompanied on its external and superior side by one of the cords of the axillary plexus, appeared just where it emerges from behind the scalenus anticus muscle. An aneurismal needle, armed with a strong silk ligature, was now passed round the vessel, the point of the instrument being directed outwards and backwards, so as to avoid the subclavian vein. The artery being then tied, the edges of the wound were brought together by two interrupted sutures and adhesive plasters.

In the course of this operation, two or three small vessels, branches of the transversalis humeri and transversalis colli arteries, had to be taken up. The external jugular vein was divided, and tied on each side of the wound.

Progress of the Case. April 12.—Patient says he has felt much more comfortable since the artery was tied; the tension and weight of the arm having greatly diminished. On taking a view of the upper part of the arm and shoulder, the attention was at once arrested by the general reduction in its size; the skin was softer, and more natural. About the elbow it has also subsided, but the œdema of the fore-arm and hand are about the same. Temperature of the arm has remained about natural since the operation, but at present the heat is a little augmented. By accurate measurement, taken before the artery was tied, and again to-day, there is about three-quarters of an inch abatement in the size of the aneurismal tumor in the axilla and under the pectoralis major muscle; lividness of the axillary part of the tumor much less than yesterday. Pulse 117; tongue and skin natural.

Owing to the frequency and irritability of his pulse, I directed him, since he came to the city, to take a good nourishing diet. This he is requested to continue. Also, to keep the arm wrapped up in cotton wadding.

April 13.—General expression of his countenance much improved—says he feels much better; temperature of the arm and hand about natural; more œdema of the hand; diminution of the tumor a quarter of an inch, by actual measurement, since yesterday. Pulse 101. General irritability of the system lessened. Directed him to continue the same diet.

April 14.—Pulse 100. Œdema of arm gradually subsiding, that of the hand remaining nearly the same; temperature of limb nearly natural: the size of the tumor has diminished half an inch since yesterday: feet being œdematous, I put on a bandage, and directed him to keep his legs in a horizontal position.

April 15.—Patient expresses himself, this morning, as being more comfortable, and says that he has passed the best night since the operation, having remained in his easy chair in a reclining position. Temperature of the arm natural; dimensions of the tumor and shoulder the same as yesterday. Pulse 94; appetite good.

On the under part of the fore-arm, near the elbow, some threatening of ulceration was visible before the operation. This arose from the pressure and weight of the limb. As some redness extended from it over and about the olecranon, he was directed to cover over the whole with an emollient poultice.

The most projecting part of the tumor in the axilla, which was quite livid before the operation, continues now to have the cuticle cracked, and is oozing a watery, and somewhat purulent fluid; it is quite soft and fluctuating to the touch.

The lint over the strips of plaster covering the wound, being somewhat saturated with matter, was removed, together with the adhesive straps which retained the edges in contact. Most of the wound, except at the outer extremity, is united by the adhesive process.

April 16.—Better than since he received the injury; is a little excited by a visit from several of his friends from the country. Pulse 100; appetite good; slept very well during the night; tumor in the axilla exudes from the cracks a sanious fluid.

April 17.—In all respects as comfortable as yesterday; more of his friends visited him to-day; pulse eight or ten beats, more frequent than yesterday; directed him to be kept more quiet; dressed the wound; it looks well.

April 18.—Does not look so well; says he did not have a good night's rest; was not in any pain, but could not get into the right position; is sleeping from time to time during the day; pulse 120; arm of the natural temperature; circumference of the tumor the same as yesterday; a small quantity of dark grumous blood is being discharged from the most prominent point of the aneurismal swelling in the axilla.

Sense of feeling begins to return in the arm from the shoulder to the elbow; it is accompanied with a painful sensation when the finger is passed over it. Directed him to continue his nourishing diet, take porter, and if his restlessness requires, to take his tea-spoonful of laudanum.

April 19.—Found him this morning in a recumbent position on his couch. At my urgent request, he, yesterday afternoon, went to bed, previous to which he was somewhat incoherent, and now says that he hardly knew what occurred yesterday.

Passed a much better night, looks and expresses himself as much better than yesterday; œdema of the fore-arm, hand and feet, much diminished. Aneurismal tumour discharged dark colored blood in small quantities; size, the same as yesterday; pulse, 103, soft, and free from the irritability it had yesterday, and for some time before the operation. This more tranquil condition of his vascular system is to be ascribed to the exclusion of his friends since yesterday.

April 20.—Passed but an indifferent night, not being able to relieve himself by any change of position; feels better, however, to-day than for several days past. Dressed the wound, which is granulating very well; removed the second suture and two of the ligatures; circumference of the aneurism diminished one quarter of an inch since yesterday: it continues to discharge from the most prominent part of the tumor; œdema of the hand and fore-arm much diminished. Indeed, the whole extremity begins to assume a much more natural appearance; tongue clean; appetite better than for two days; pulse 94.

April 21.—Passed a better night; the tumor has not undergone any perceptible change since yesterday; œdema of fore-arm and hand is gradually diminishing; pulse, 84; temperature of hand nearly natural.

April 22.—Tumor in the axilla has discharged more freely since yesterday: all his symptoms are ameliorated; dressed the wound; looks well; another ligature came away; pulse 86.

Sense of feeling in the arm increases gradually; it has now extended to the elbow. In the fore-arm and hand, sensation and motion are entirely abolished.

April 24.—Is sitting up, and says he is in all respects much better; dressed the wound; it is granulating beautifully; removed the other ligature from the external jugular vein; pulse ninety-six; appetite good; sleeps well, without his accustomed teaspoonful of laudanum.

April 26.—Says he feels constantly improving; dressed the wound; much filled up since the last dressing; ligature from the subclavian came away, having separated spontaneously; pulse ninety-four; more grumous blood discharged from the tumor; scab upon the apex of the aneurism about the size of a dollar.

April 28.—In all respects improving; wound looks very well; but for the weight of his arm, he would feel perfectly well.

May 2.—Wound nearly healed; walks about the room; in all respects improved.

May 16.—Greatly improved in appearance; feels in all respects very well; eschar from the tumor in the axilla came away spontaneously yesterday, leaving a fresh surface of coagulated blood. There was an increased flow of grumous blood when it came off; it was about the circumference of a dollar, and nearly half an inch thick; it had remained on about twenty-eight days; it was composed of black grumous blood, very hard, dry externally, and cracked.

June.—Has continued to improve regularly; is permitted to return home.

After the first slough of integuments took place, it was curious to watch the steps of nature to prevent hemorrhage. As one eschar would come away, another would very quickly form, to plug up the opening; it would be many days in separating, and had the appearance of a regular slough from the application of caustic; it was, however, a thick layer of the grumous and lamellated blood of the sac.

In this way, plug after plug of hard coagulated blood would form and be cast off, and then there would be a pretty free discharge of this grumous blood, with some coagulated portions. The sac was gradually evacuated in this way until all its contents were removed, and a fresh granulating surface was left, which readily healed up.

November.—Came to the city to see me; appearance of the whole arm very nearly natural; sensation and motion considerably restored in the fore-arm and fingers.

Those interested in the advancement of surgery in our country, may, perhaps, be gratified to learn that this is the fourth time that I have put a ligature around the subclavian artery above the clavicle, on the acromial side of the scaleni muscles. All the operations have been attended with success.

Art. III.—*On the Principles and Treatment of Fractures and Dislocations.* By George O. Jarvis, M.D.

Mr. Editor: Through the medium of the New York Journal of Medicine, I beg leave to call the attention of surgeons to a much neglected, yet highly important, department of their profession. I mean the *principles* and *treatment* of Fractures and Dislocations. And from the great frequency of their occurrence, together with the permanent lameness and deformity (and I might add loss of life), which are quite liable to follow from those injuries, no department of surgery can justly claim more of the surgeon's patient investigation; in none does the public possess a deeper interest; nor does any involve more seriously the professional standing and character of the surgeon. And yet, while every other department has advanced, so as to astonish the world by its stupendous results, this, the one which more than any other involves the every-day duties of the surgeon, can scarcely be said to have advanced even a tythe in the general progress. Except in two instances only (and those essentially defective, as we shall endeavor to show), I am free to confess I know of no material improvement in this department of surgery, within the last fifty years; nor even within a century.

The double inclined plane of Sir Charles Bell, was indeed an improvement—one that involved an essential principle in treatment, and one without which the just position could not, in a majority of cases, be given to the limb, it being the first application of the principle of *that position* (of the inferior extremities) *by which the separate portions of a fractured bone will incline into a normal line of that bone.* Still, while we give full credit to the invention as fulfilling, most perfectly, the above indication (when the angle of the plane is well adapted to the injury), whether the inventor had this distinctly in view or not, we find another principle, equally essential in treating those fractures, remaining unapplied in the use of the double inclined plane, viz., extension and counter-extension. For this reason alone, it must be confessed, it is essentially defective in its mode of operation.

The straight splint of M. Desault was also an improvement. In it was also the first application of an essential principle, viz., that of *extension and counter-extension;* yet it was applied in that apparatus, in a majority of cases, to the entire sacrifice of position. For this reason alone is this too essentially defective; but this is not the only imperfection with which it is justly chargeable; it always (though not of necessity) included a *joint* between the points of extension and counter-extension—a practice highly exceptionable, as in the course of our remarks we shall endeavor to show.

Of the thousand and one inventions that have been presented to the profession for the treatment of fractures, we may remark of them all, that, invariably and without an exception, they are either *modifications* of the one or of the other of the above, or a *combination* of both. When a modification merely, no other essential principle is made to apply than such as its original contained; and of course the apparatus itself must remain like its original, still defective; and, like many ingenious hypotheses, possessed of *some* truth, and beautiful to look at withal; yet, after all, it is their want of truth which renders them of no particular value.

Where a combination of both has been attempted, although in some cases it may appear quite plausible at first view, yet, on a closer examination, it will be found that those principles, after all, are not so combined as to act with the same precision that they do in their originals. The points of extension and counter-extension are always, and of necessity, made to operate from the two extremities of the limb, and any attempt to vary this rule, has more of appearance than reality in it, and ever must be so, in the nature of things. Now, it is quite apparent that, to give to the limb any given angle, by means of the apparatus to which it is attached, while, at the same time, that apparatus produces extension and counter-extension, operating from the two extremities of the limb, must of necessity (mechanically considered) convert the femur and tibia, each into a lever; the soft parts serving as the fulcra, at incidental points on the plane; those between the knee and trochanter, serving as the fulcrum for the femur; and those between the knee and ankle, for the tibia. The tendency of this must be just as much to throw the fractured portions of the bone out of a normal line of that bone, as to produce extension and counter-extension of the limb. Here we have a power wrongly applied, which is not in either of the original apparatus; and except that such an one does in some degree combine the two principles, its operation would be far more objectionable than either; but as it is, it is most clearly defective on this account, while the same objection of including a joint between the points of extension and counter-extension, also lies against this, that has been stated to lie against the straight splint of Desault. Except in the case of Desault's splint, the extending point may be made to operate from above the knee, but in this it never can; at least, not so that the line of extension and counter-extension shall be in the exact line of the shaft of the bone in its normal state; and no power can be correctly applied to preserve co-aptation that does not operate in this line. This truth will, undoubtedly, on reflection, be admitted by all.

It may be well here to give a few of the reasons why a joint ought never to interpose between the two points of extension and counter-extension. It is conceived this should be the rule, and any variations from it, of necessity, are but exceptions to a sound general rule.

First, the ligaments of a joint and the tendons which pass over it, admit of various degrees of elongation in different subjects, and in the same subject at different times; and also in the same subject at the same time, according as the limb is more or less flexed.

In a series of experiments, pursued in reference to this subject, I have witnessed a difference in the length of the two lower extremities, by means of extension and counter-extension, applied to one limb and not to the other, of seven-eighths of an inch. This is the greatest that I have seen.

On other occasions where the degree of extension and counter-extension applied produced great pain, no perceptible difference in the length of the two limbs could fairly be made to appear.

Thus I have observed this difference to vary, in different subjects, from nothing up to seven-eighths of an inch.

I have also observed, that those subjects in which no perceptible difference could be marked, while extension and counter-extension were applied to the limb, in the straight position, showed clearly a difference of one-third or one-half of an inch, when extension and counter-extension were applied in the bent position.

I have also observed full five-eighths of an inch difference in the same subject at different times; owing, probably, to the different degrees of muscular relaxation in the system at the different times of trial; and whatever tends to produce muscular relaxation, tends, as far as I have seen, to this result.

The difference in the distance, which the two articulating surfaces of a joint show at different times, depends more, as we apprehend, on the tense or relaxed state of the *tendons* passing over that joint, in consequence of the tense or relaxed state of their muscles, than upon any material variation in this respect of the ligaments of that joint. To give an example: the gastrocnemii, the biceps flexor cruris, the semi-tendinosus, and semi-membranosus muscles, it is conceived, are the chief agents in confining the two articulating surfaces of the knee-joint so closely together, while the limb is in a straight position; but, on the limb being semi-flexed, the tendons of those muscles become relaxed, and the ligaments of that joint, consequently, admit of a greater elongation of the limb. This principle is further illustrated by the practice of bleeding, or by producing nausea in our attempts to effect reduction of a difficult luxation; the relaxation which we thus occasion is mainly, it is conceived, of the muscular fibres, and not so much of the ligaments of the joints; yet, however this may be, the facts show clearly that whatever tends to vary materially the tension of the muscular fibres connected through their tendons with the movements of a joint, tends also to vary the capability of the two articulating surfaces of that joint of being thrown, more or less, asunder. Hence the impropriety, in treating fractures, of including a joint between the two points of extension and counter-extension; from this cause alone, the surgeon would be constantly liable to be deceived in the length of the limb, and not the less for the vast diversity which is so manifest in different subjects; indeed, this circumstance would prevent anything like an accurate rule of allowance being established.

For the benefit of those who wish to test these facts accurately, I would observe that in experimenting on this point, I used the Surgical "Adjuster," mentioned in the first number of this Journal, vol. I., p. 140—also in vol. II., p. 133. Indeed, I know of no other method by which these facts can be accurately demonstrated, nor do I know of any other way by which extension and counter-extension *can* be applied in the *exact* line of the shaft of the bone in its normal state, while that position is allowed, without which we should violate one of the simplest laws in the mechanics. With the Adjuster, however, the one can be accurately and easily tested, and in the other, the necessary mechanical power, which most fractures require to preserve coaptation, can be correctly, easily, and efficiently applied. Indeed, let me observe, it was the settled conviction of my own mind—the result of much observation, of the existence of these and other errors—errors both in principle and practice, which gave rise to the Adjuster. It cannot fail to be seen, that these errors in our mechanical means, are not mere blemishes in our mode of application. They are defects in our general system of treatment, and such as call loudly upon us, not only to correct in our own practice, but to expose, as beacons, to warn others also.

In using the Adjuster, to determine how far a limb is capable of yielding to extension, it may be well, perhaps, here to caution the operator against deception; he may think, perhaps, if he affix the counter-extending point of the instrument immediately above the knee, and the extending point at the ankle, that, therefore, all that the limb is increased in length, is derived from the knee joint alone, inasmuch as that is the only joint between the two ends of the instrument—but in this he will be deceived. Should he observe carefully he will find that the soft parts above the knee, and from which the counter-extending point of the instrument is made to operate, yielding over the femur to the extending power of the instrument, the whole bony column, from the hip to the ankle, is operated upon, and that, too, nearly in the same degree: and he will have, as his result, all that the knee and hip joints together are capable of yielding to extension.

To determine, however, how much each joint yields separately, let the counter-extending point rest against the os ischium, and the extending point be affixed above the knee; now, by extension, determine how much the hip joint yields; then shift the extending point of the instrument to the ankle, the counter-extending still resting against the ischium; and again, by extension, determine how much the whole limb yields; the difference between the two results will be the length which the knee joint alone yields to extension.

It is sometimes not a little amusing, to see the diversity of contrivances which are manufactured for treating fractures, most of which are arranged with much ingenuity, and all, apparently, with the express design of embracing something new and essential in treatment, but which, after all, fail to include a single principle, or to vary in any essential particular, from those already made use of by Sir C. Bell and M. Desault, except, as we have already shown, where both are attempted to be combined, in which case a large share of the power, as we have also shown, is made to operate in a decidedly wrong direction; and this, for anything that we can now discover, must be true of every one of the kind. Frequently we see one kind rejected for another, which, in fact, is just like it; and some there are, who having been disappointed, doubtless, in their expectations of those in use, have been led, professedly, to reject the whole as worthless, and to adopt, as their rule of action, the still more absurd practice of relying on their own inventive powers for the time being, when called upon to treat a fracture. These, although they professedly reject what is true, and, consequently, can have no well-defined principles to govern them, in constructing their mechanical means, subject themselves to the still further inconsistency of attempting to apply, *impromptu*, by their wonderful powers, the very principles, and those only, which they seem little to understand, and think, forsooth, to reject; for when put fairly to the test, their apparatus is found to contain neither less nor more than some one or two of the very principles which have long been in use, but generally more inaptly and unskilfully applied, and containing much that is positively wrong.

It is not intended here to deny the importance, or in any way to undervalue that trait of character, of the surgeon's being both apt and ready, on all occasions of a peculiar condition of the injury, or of the system, to adapt, happily, his mechanical means to such condition, whatever it may be. These, however, seldom or never require a neglect, much less a violation, of principles common to all fractures of the kind; they require only such addition or modification as may adapt them to such peculiarity, not in the least neglecting the application of those general principles.

These facts, we conceive, show clearly that there is a consciousness among surgeons, that there are defects—serious defects—in this department of their profession, and such as it has been the almost constant endeavor of some to correct. We trust, in the preceding pages, we have distinctly pointed out some of them. Whether we also succeed in the following, in laying down those principles that shall effectually correct them, the judgment and experience of candid and judicious surgeons must decide.

We will now endeavor to lay down those rules, which we conceive are necessary to be observed, together with our reasons for the same. So important do we conceive them to be, that a violation of either one would necessarily result in some of its attendant evils, though perhaps not always equally apparent; in other words, that they can never be violated or neglected, with *perfect* impunity. And further, that to these Rules ought all mechanical means to be adapted. They are the following:—

I.—That *Position* should be given to the limb, which will incline the several parts of the fractured bone into a normal line of the shaft of that bone.

II.—That *Degree* of extension, and counter-extension, should be applied, which will give and preserve to the limb, a full normal length.

III.—The *Points* of extension and counter-extension should be confined within the limits of the fractured bone.

IV.—The *Line* of extension and counter-extension should be made to operate on the limb, in the *exact line* of the shaft of the fractured bone in its normal state.

These are our rules for treating fractures, and by observing them correctly, it is conceived the case would seldom, if ever, occur, in which the full length and just proportion could not be given to the limb, before osseous union takes place in the fractured bone; and no point short of this ought ever to satisfy the surgeon.

But, we will comment on the rules as we have laid them down, and that in the order in which they stand, and first:

Position.—That we may be more readily understood, in our remarks on this subject, we would here observe, that we shall endeavor to show that all fractures occurring below the insertion of the psoas magnus and iliacus internus muscles, or, in other words, all below the trochanter minor, require to be placed on the double inclined plane, in the bent position; and all occurring above the trochanter minor, in the straight position; this division is agreeable to the first rule.

We would here also observe, that our own views on the proper point of division, have undergone some change within the last twelve months. We had entertained the opinion, and expressed it, on more occasions than one, that this *point* of division should be at the insertion of the gluteus maximus muscle; but subsequent reflection and experience have convinced us that the first named is the correct point of division.

We will first call attention to the Myology of the thigh and leg.

In viewing the muscular attachments of the thigh, we find no less than thirteen distinct, and many of them heavy-bellied muscles, attached to the femur, at and above the insertion of the gluteus maximus muscle; besides some portion of the adductor magnus muscle. By these attachments, they surround the femur, and being also attached by their other extremities to the pelvis, at different points, they are capable of acting on the femur from above, at all points; their fibres all diverge from the femur towards the pelvis; they are the following: Pyriformis, Superior Gemellus, Internal Obturator, Inferior Gemellus, External Obturator, Gluteus Medius, Gluteus Minimus, Quadratus Femoris, Psoas Magnus, Iliacus Internus, Pectineus, Adductor Brevis, and Gluteus Maximus.

All the other muscles which attach to the femur, except the adductor longus, a large part of the adductor magnus, and a small part of the adductor brevis (all of whose fibres diverge toward the pelvis), form their attachment below the insertion of the gluteus maximus, and their fibres diverge from the femur towards the knee, and are attached below that joint, as the fibres of the first named muscles do from the femur, toward the pelvis to attach to the pelvis, though at a less angle. The muscles thus situated, are the short head of the biceps flexor cruris, nearly all of the vastus externus and vastus internus, and in this connection (although a muscle of the leg), may also be named the gastrocnemius, inasmuch as its two heads are attached above the condyles of the femur, while its other extremity is attached below the knee, and consequently may act powerfully on the lower portion of the femur, when fractured below the trochanter minor.

All of the other muscles of the thigh, not already enumerated, are attached to the pelvis by one extremity, and after passing over the femur, are attached by the other at some point below the knee; consequently they cannot exert any other direct influence over the fractured bone, than to approximate the two extremities of that bone.

Before proceeding to show the bearings, which this arrangement of the muscles may have on the different fractures of the thigh, let me call attention to one more fact, viz.: that in all fractures of the thigh, below the insertion of the psoas magnus and iliacus internus muscles, the upper portion of the fractured bone is generally, if not always, the rising end; at least I never saw it otherwise; consequently the lower portion is the depressed end.

Now, it must be apparent, from the commanding position which the psoas magnus and iliacus internus muscles occupy, at one extremity of the bone, while the gastrocnemii and short head of the biceps flexor cruris are situated, to hold an equally commanding influence over the movements of the other extremity, but in an opposite direction, the bone being broken,—that these muscles are therefore the chief agents in giving that position to the several portions of the fractured bone which they are so uniformly found to possess,—that the psoas magnus and iliacus internus are the chief agents in casting the fractured end of the upper portion of bone forward, and the gastrocnemii and short head of the biceps, the chief agents in casting the fractured end of the lower portion backward; neither set of muscles being controlled by the same antagonist influence, after a fracture which compelled them to yield to it before, each is thrown into a semi-flex position, or as near to it as the resistance from the surrounding parts will admit of, and no muscles are now sufficiently antagonistic either to prevent the one or the other from that tendency of throwing the fractured ends asunder.

Now it must be apparent, that here lies our main difficulty in treating fractures of the thigh below the trochanter minor. To place the limb in the straight position, would it not increase the tendency of the two ends of the fractured bone to separate still further from each other, and also to shorten the limb?

Does it not sometimes require strong physical force to bring the rising end of the fractured bone down to the other end, and still stronger mechanical means to keep it there?

Does it not sometimes require a degree of mechanical power to maintain the full length of the limb, greater than the patient can possibly bear? These questions are addressed to those who have had experience in this matter,—let them decide.

A fracture, happening above the insertion of the gluteus maximus, yet below the psoas magnus and iliacus internus, will be found to differ, in some respects, from one happening below the insertion of the first named muscle; in the one above, the fractured end of the lower portion being surrounded by muscular attachments as we have seen, that diverge from it and are inserted into the pelvis, it is thus held by those muscles whose tendons are attached to it, in a given position; that position generally is, that the fractured ends pass each other, and the two parts of the bone form the two sides of an angle more or less obtuse. But in a fracture below the insertion of the gluteus maximus, the fractured end of the lower portion is not thus held, and the inclination of the two ends is constantly to separate from each other: this is overcome by flexing the limb. In the first instance, to straighten the limb would be to increase the tendency toward a right angle; in the last, to throw further apart the ends of the fractured bone.

Thus do we find that the proper remedy for both is the same. To flex the limb properly, would be in the one case to remove the angle and to incline the several parts of the fractured bone into a normal line of the shaft of that bone. In the other, to approximate the two fractured ends of the bone and to incline the several parts of it into that same normal line.

In all fractures, *above* the trochanter minor, the case is quite different. The tendency of the muscles is not now so much to throw the two portions of the fractured bone out of a normal line of that bone, as to draw upward the lower portion, and thus to shorten the limb. We have not in this case, as in the others, the psoas magnus and iliacus internus muscles attached to the upper portion, throwing its ends forward, but we now have them attached to the fractured end of the lower portion; not, however, to produce an equally marked effect in throwing that end forward; for in this case, only a small part of the antagonist influence opposing them, is destroyed, but still their tendency is to make this the rising end.

Now, under these circumstances, to flex the limb would be to produce an effect the reverse of that produced in the other cases. Plainly, its tendency would be to place the two portions of bone at an angle with each other, more or less, as the limb is more or less flexed. This would be the condition of the limb if the fracture were below the neck; if at the neck, the effect would be to rotate a part of the neck on its own axis, while the other part remained fixed in a situation which is relatively wrong to the limb; and now to apply extension and counter-extension to a limb thus situated, would be to incline still farther from a natural position the two ends of the fractured bone; but to place the limb in a line with the body, or in other words, to place the limb in the straight position, and apply the necessary extension and counter-extension, would bring the fractured extremities not only in apposition, but the shaft of the bone into that line which inclines the lower end into a normal line with the upper.

It is no part of our object in these sheets, nor is it our intention at this time, to discuss the question of the possibility of an osseous union taking place at the neck of the thigh bone; our object, at present, is, rather to examine and discuss such mechanical principles as are involved in the treatment of fractures and dislocations; but we may, however, be permitted to state, from the connection it has with our subject, that the opinion which has so generally been entertained among surgeons, that osseous union never takes place in a fracture at the neck of the thigh bone, we conceive to be an error, and one that has been the occasion of much evil; facts are abundant, we conceive, to prove it so; and holding this opinion, as we consequently do, we must say, no surgeon ought ever to proceed on such an hypothesis. That ligamentous union, instead of osseous, is the more general result of those injuries, if, indeed, there be any union at all, I freely admit; but that such union, and such only, must necessarily result, I deny; and I think it would not be difficult to show why it is that ligamentous, instead of osseous union, so often takes place. But the discussion of this, with other matter, we must leave for a future occasion.

From what has been already shown, it cannot be necessary that we should remark distinctively and separately on position for treating fractures of the leg; the same general principles which are here laid down, are equally applicable to those injuries also. Neither can it be necessary to remark more fully on position for treating fractures of the arm or fore-arm; the same principle is already (instinctively as it were) pursued in treating those injuries, therefore further remarks on this point, it is conceived, are unnecessary to render the subject intelligible.

II.—Extension and counter-extension.

The necessity and propriety of this rule must be so apparent, that to enter here a labored argument in its support, it appears to us must be entirely uncalled for, and therefore we shall not attempt it. Of the *time* and *manner* of applying it, we may, however, be permitted briefly to remark, that it occasionally happens, especially in fractures of the leg, that by the extreme tenderness and irritable condition of the skin, the results of inflammation which sometimes follow those injuries, and which are likely to continue during its active stage, forbid the early application of the necessary extension and counter-extension which would give the full length to the limb; but if the surgeon will but observe carefully, I trust he will find that osseous union does not take place in the fractured bone while this active character of the inflammation continues in the limb; the pathological condition of the one seems, and undoubtedly is, incompatible with the physiological character of the other; but after the more active form of it has once passed (which will usually be within eight or nine days, and sometimes sooner, if efficient means are used to subdue it), the extreme tenderness of the skin will also subside along with it, and extension and counter-extension can be applied, moderately at first, perhaps, but daily increased, if need be, until the limb has acquired its full length and normal shape, and that, too, before osseous union begins in the fractured bone. Thus, in this case, the most difficult of any to apply this second rule successfully, do we find it not only of ready application, but effectual to prevent deformity; so, that I confess, from observation and experience alone, I am led to doubt the necessity of a limb being made shorter by this accident, while, without these precautions, such a consequence must be inevitable.

III.—The points of extension and counter-extension should be confined within the limits of the fractured bone.

On this rule it can hardly be deemed necessary for us to remark more, after having shown fully, as we trust we have done, that many ill effects result from extension, &c., upon the joints; and also, that evil consequences always have followed, and probably always will, any attempts at combining the two principles (extension and counter-extension, with position) in the same apparatus. Indeed, the propriety and importance of the rule is necessarily shown in our attempts at pointing out the defects and imperfections of the various apparatus in use; and the reader is referred to that part of our article for reasons in support of this rule.

IV.—The line of extension, &c., should be made to operate on the limb, in the exact line of the shaft of the fractured bone in a normal state.

It must be obvious at a glance, that any power applied in the line of the shaft of a bone, and affixed near its extremities, must counteract the movements of those muscles, whose combined tendency is to cast any portion of that shaft out of that line, and it must tend to bring all parts of it back to its normal shape.

This, it must be confessed, is what is much desired in treating fractures; hence the propriety and importance of the rule is apparent, especially after having adopted that *position* which of itself inclines the separate portions of the fractured bone into a normal line.

Thus have we endeavored, briefly as possible, to give our views of some of the leading principles which are, more or less, and of necessity, involved in the treatment of every fracture, together with the principles on which all mechanical means should be arranged to answer the most obvious indications in treatment. They are all intended to be based on anatomical, mechanical, and philosophical principles; yet their importance will not be seen, their value appreciated, until they are correctly applied in practice, and then do we confidently entertain the hope that they will be.

We will now call attention to the other part of our subject, viz., dislocations; and at the commencement of it, we will state, that it will be our endeavor to show distinctly, that in all luxations, especially of the larger joints, as of the hip, the shoulder, the elbow, the ankle, &c., it is important that extension and counter-extension should be so applied as not in the least to restrain or limit the movements of the limb, while the extending power is in full operation upon it; that its movements require to be just as free during the operation of that power, as it would be independent of the application of any such force, to effect an easy and skilful reduction; or, in other words, and for the purpose of being distinctly understood, we say that it is an unskilful and an unscientific application of power that confines, or in any way restrains the movements of the limb during an attempt at reduction; and that many luxations can be reduced by using a freedom of motion while the limb is under the influence of a full extending force, which never can be, if confined or limited in its movements, be that power what it may; that in all luxations, reduction is more easily, readily, and certainly accomplished by this means, than it can be without it; and we would here take the opportunity to acknowledge, that the discovery of this fact was rather accidental with us than otherwise, although we had long entertained the opinion, that power applied by the pulleys, &c., was *necessarily* wrong in many instances. Still we did not dream that *that* derived from assistants was also wrong, or rather, I would say, so imperfect in character as it really is, until, on one occasion, where an old, and as I had supposed, a very difficult luxation of the shoulder was presented to me for reduction. I applied the Adjuster, thinking to produce, firstly, strong extension on the luxated joint, and secondly, while the power was thus strongly applied, to give free and extended movements to the arm, in order to break up any adhesions that might have formed; and thirdly, then to turn my attention solely to its reduction; but what was my surprise while giving those movements to the limb, to find the head of the humerus suddenly slip into the glenoid cavity, vastly easier than I had ever witnessed before; and yet I had expected it to be one of the most difficult to reduce. The inquiry turned instantly in my mind, how is it that this difficult luxation was so easily reduced? —what the philosophy of this happy result? I soon, however, found, on reflection, what I supposed to be the true solution of the problem; such, indeed, as all my subsequent experience has served to confirm in my own mind. It is, simply, this: yet it is what renders highly important the free and extended movements of the limbs, under any degree of extension necessary to effect reduction.

In most dislocations, the head of the bone is driven through the capsular ligament, and not unfrequently it is also driven in among the surrounding integuments. It may be well also to observe, for the purpose of calling attention to the fact, that the head of the bone is always larger than its neck, and that *that* head, if luxated, must find its way back through the same opening that was made by its exit. Now it must be obvious, that the soft parts, surrounding the neck of the bone,—especially if the opening be only sufficient to admit the head to pass,—form no inconsiderable portion of the resistance which the surgeon has to meet with in reduction. Indeed, it is conceived this is what different writers on this subject refer to, when speaking of the "head of the bone being entangled in the surrounding soft parts." Now it must be apparent to every one, that this resistance can be more readily and certainly overcome by using the bone as a lever, to disentangle the head, in *conjunction* with an efficient extending and counter-extending force, than it can be by using either one separately. Indeed, the difference is almost immense, as every one knows, whether he pulls in a right line, at a stick driven into a plank, or whether, in addition to force so applied, he also uses that stick as a lever, to assist him in detaching it from its fastenings. There is not a mechanic who does not perfectly understand the advantage he is thus to gain, and who is not also sure to avail himself of its benefits, if the material on which he operates will admit of being so handled. Here then is the advantage which I derived in freely moving the limb, in reducing the dislocated shoulder; and that we may not derive the same benefit as others, in using this principle, to me, at least, the idea seems preposterous; especially since (as we shall endeavor to show) there are luxations which cannot be reduced without it, which, in all fair probability, may be with it.

I am informed by a medical friend, that he was present at one of our public schools, when a dislocated hip was attempted to be reduced before the class, and which he thinks was of less than three months standing—indeed, he thinks it of not more than half that time; yet, on this point, his recollection is not now distinct. The patient, however, was prepared for the purpose; the pulleys were applied, and everything made ready for such an operation; the surgeon, one of the most distinguished in his profession, and worthy of the honors that he long bore. The operation was commenced, and all eyes were now turned upon the patient. A feeling of intense anxiety was also manifest in every countenance; the power was constantly and steadily increased, the surgeon at the same time giving all the motion to the limb that was allowed him to give, and that merely a little rotatory motion of the thigh—no yielding of the parts about the hip, no descending of the head of the bone toward the acetabulum could be perceived; the power was increased, and still increased, until at length a violent crack was distinctly heard by all in the room; the students clapped their hands, but the surgeon stood amazed, apparently thunder-struck. The man was immediately ordered to be carried out, and no more was seen of him by our informant; but he afterwards learnt that the femur had been broken in the operation, instead of the luxation being reduced. I now took this opportunity to inquire of my friend, the opinion that was entertained at the time of the nature of the difficulty, why the femur should fracture instead of the head of the bone descend to the acetabulum? He replied, that he never knew what opinion the surgeon distinctly entertained of the difficulty, but that the general opinion was, that adhesions had formed to prevent the descent of the head of the bone.

Now, we are bold enough to say, and that, too, while we yield all deference to the opinions of others, that this opinion could not, by any possibility, have been a correct one. It requires a greater share of credulity than we are possessed of, to believe that adhesions can form in two, three, or even four months, that shall more than equal the strength of the femur. To our mind, the more rational conclusion is, that the head of the bone had been driven through the capsular ligaments deep into the muscular substance about the acetabulum, and that, by the oblique position of the neck of the shaft of the bone, the head and neck together, served as a hook, and thus became hitched around a large bundle of muscular fibre. Now, any power applied to the limb in a line with the body, must either tear away that bundle of muscle, or break the bone, if that power be greater than either. In this case, the strength of the muscle was more than equal to the strength of the bone, and hence the fracture. Any dislocation situated as that probably was, or at least as we have supposed it to be (and I trust none will deny that one may be so situated), never can be reduced by the pulleys, no matter who the operator, unless perchance he tears away the muscle. The fault lies in the manner in which that power is applied, and not in the skill of the surgeon. But for once suppose the power to have been applied, so as to allow a perfectly free motion of the limb on the body, at the same time a strong extending power was operating on the limb. Now suppose the surgeon should alternately flex and extend, adduct and abduct that limb, freely as its new position would allow, does it require any unusual degree of sagacity to perceive that such motion would greatly facilitate the disengaging the head of the bone? Certainly not. Indeed, we would ask, is there any other rational way to disentangle that head? We confess we can see none. Certain it is, that extension alone, in one given line, does not operate in a line with the neck of the bone, and consequently can have no tendency to free the head, so long as that, together with the neck, is operating as a hook around a body of muscle.

Now here lies our objection to pulleys especially, and also to assistants substantially (except that the latter is not equally bad with the former), still, the power of each is immovable, fixed; whereas all power for reducing luxations should be movable and free, yet in most cases of simple luxations, and of not long standing, the surgeon, with the one or the other, can ordinarily accomplish his end; but then, the operation, especially with the pulleys, is more like putting a man to torture upon the rack, than that of a skilful and dexterous surgeon. But when difficulties present other than the mere contraction and rigidity of the muscles, what power do these furnish to the surgeon, to overcome those difficulties? Certainly none. Indeed, they rather operate as a bar to his using the necessary means to overcome them, as we have shown.

The difficulties sometimes connected with luxations, to which we have adverted, and the objections to the use of pulleys and assistants, which we have stated, become more apparent if the luxation happens to be one of long standing; not by adhesions merely, be it understood, but by the parts surrounding the neck of the bone, closing upon it more firmly, and thus holding it more closely within its grasp, in consequence of inflammation that is sure to follow such injuries, rendering the muscular fibres surrounding that neck, more firm, tense, and rigid than in their natural state.

Now, what hope can a surgeon reasonably entertain of reducing such a luxation by means of the pulleys and all the assistance which he can desire at his command? None—surely none. But were he permitted to use a movable power, one with which he could vary the line of extension freely and at pleasure, would not his prospects of thus relieving the head of the bone from its fastenings, and consequently of reducing the luxation, be more than doubtful? Would they not at least be probable? And yet, the difference in the advantage which the Adjuster affords the surgeon, is not more manifest in this than in many other cases; but we will bring but one more case, to illustrate our position: and that, a dislocation of the elbow (ulna on the humerus). Suppose, as is usual in such cases, that the coronoid process of the ulna is lodged in the posterior fossa of the humerus, and also that it is a dislocation of long standing. Now it is conceived that the main difficulty in reducing this dislocation is, in being able to flex the fore-arm upon the arm freely, while we use extension and counter-extension upon the joint; indeed, we shall endeavor to show that the surgeon thus privileged, can reduce almost any dislocation of this joint, where the several parts which constitute its articulating surface remain unimpaired. And we would here remark, that it is to this principle, we conceive, notwithstanding all that has been written on the subject, that the practice of bending the arm over the knee, or around a bed-post, derives its chief advantage, although the method itself is but imperfectly carrying out the principle, and mainly so from the imperfect extension and counter-extension to which the surgeon, in adopting the method, is compelled to submit, as will more clearly appear in our subsequent remarks.

It must be apparent to any one at all acquainted with the anatomy of the parts, that any force which pulls the fore-arm in a right line with the arm, only serves to lock more closely the coronoid process in the posterior fossa, and any effort to disengage them, while under the influence of such force, must almost invariably prove unavailing. I, however, have myself in a number of instances, reduced the ulna when it was luxated backward on the humerus, by simply extending the fore-arm in a right line with the arm, but then, let it be remembered, the coronoid process was not lodged in the posterior fossa, at least not perfectly so; a situation which the surgeon may always determine, by the position which the olecranon process occupies. Such a dislocation may be reduced, as I was well aware at the time, by almost any means which the surgeon may choose to adopt, but such is by no means the case, when the process is fairly lodged in the fossa. A remarkable instance of this fell under my own observation, but a few weeks since.

A lady, who had a recently dislocated elbow, sent for a noted empiric in bone-setting, who after repeated efforts by his own unaided strength, calls to his assistance three lusty tars, besides others less used to pulling at the halyards; taking a firm hold of the limb near its two extremities, they are ordered to pull; with their accustomed obedience they promptly obeyed the command to their utmost; the lady groaned and moaned and screamed and pleaded; but nothing daunted, the doctor ordered his shipmates to pull on, until after a full half or three-fourths of an hour's stretching and groaning, the signal is heard by all in the room, of the bone's being set, by a violent and sudden crack; the doctor was pronounced wonderfully skilled in setting bones (for they heard the bone distinctly go into its place), and the doctor too retired with no small share of self-gratification. The lady, however, was nearly exhausted; her limb became extremely swollen and painful; she also became very feverish—was dangerously ill; her arm could not be moved without producing excruciating pain. Finally after two or three weeks, the swelling gradually subsided, and the lady steadily improved, until she again recovered her health, but not her limb. Ten months after the accident, I examined the arm, and had the foregoing account of the case given to me. I found the trochleated surface of the humerus resting on the radius and ulna anterior to the coronoid process; the olecranon process standing prominently back, and far above the external condyle; the coronoid process lodged in the posterior fossa; the inner condyle had evidently been broken off, but had united again a little above its natural place; with a very long dining knife in her hand she could just reach her lips. These facts left no doubt on my mind that the violent crack heard at the setting of the bone, was the breaking of the condyle, and that this was occasioned by the coronoid process being lodged in the posterior fossa, which caused the condyle to give way under the violent extension before the process was set free; as soon, however, as the limb was left to itself, the parts, as a matter of course, all returned again, to nearly the position from whence they were so forcibly drawn.

Although this case was in the hands of a notorious quack, still it shows us clearly the absurdity and even danger, of making extension upon such a limb, while the arm and fore-arm are in the same line; it also shows the necessity of so placing the fore-arm to the arm, as that the coronoid process may readily slide from the posterior fossa, while extension and counter-extension is being made upon the limb; and this evidently can be done only as the ulna is pressed firmly against the lower end of the humerus; the ulna thus becomes a lever, and the coronoid process an inclined plane; in this way, almost any dislocation, of the character we have named, may be reduced.

In a recent dislocation of the elbow, the physical strength alone of the surgeon, is frequently sufficient thus to reduce it; but if it be of long standing, the surgeon will find his own strength hardly competent to the task. Still, the pulleys he cannot use; no one ever attempts it; and why? Simply because their power is fixed, and he is not allowed that freedom of motion, which every one at all acquainted with the matter, knows he *must* have to effect reduction. The absurdity in this case of confining the limb, so as not to allow free motion, is here more apparent (though not more real) than in dislocation of the hip, or the shoulder; and consequently any immovable or fixed power is never used, but the nearest approach to that which is movable and free, is by experience generally preferred.

The power applied through pulleys or through assistants, is immovable and fixed; that through the Adjuster, is movable and free. And what we have endeavored here to urge upon the attention of surgeons, and trust we have now given good and sufficient reasons for the rule, is, that all power, applied to reduce luxations, should be perfectly movable and free. It should be gentle, yet strong, and capable of great force. It should be subject, under all circumstances, to the entire control of the surgeon; and such is the Adjuster, which was arranged, having all these objects distinctly in view, whilst at the same time it is capable of being applied to any limb, or to any part of a limb, and allows the same freedom of motion, which that limb or part of a limb possessed without it.* I have never called upon any individual, or availed myself of any other means to make extension or counter-extension, since I have owned an Adjuster; and I never had an equal number of fractures to adjust, or of dislocations to reduce, where the result was so uniformly and entirely satisfactory to myself and to my patients, as during the time I have used this instrument, and I have also been governed by the principles laid down in these sheets.

ART. IV.—*On the Use of Iodide of Potassium in Asthma.* By W. B. CASEY, M.D., of Middletown, Connecticut.

MR. EDITOR,—For a year past I have looked through the various Journals that came under my observation, in the expectation of seeing some notice of the subject of this article; but have, up to this time, met with but a mere incidental mention of the fact that Hydriodate of Potash has been employed with some benefit in asthma. I therefore send you the result of my experience with it, trusting that the statement which I make will excite the attention of our profession, and lead to a trial of the remedy on a more extensive scale. Some two years since, Prof. Mütter, of Philadelphia, mentioned in the course of conversation with me, that he had accidentally discovered the fact to which I am now endeavoring to draw attention.

I immediately after this commenced its use with a number of patients suffering under this distressing and intractable complaint, and to our mutual delight, they were all more or less speedily relieved. I have now made use of the medicine in some twenty-five or thirty cases of asthma, some of them very severe and aggravated; and so far, in no one instance where a fair trial has been made, has it failed to afford unequivocal and decided relief. These facts I have stated at our county medical meetings, and have urged the adoption of the practice upon many of our neighboring physicians; and so far as I can ascertain the result, all who have tried the remedy will endorse my statement of its value. I am happy to add the testimony of Dr. North, an eminent physician resident at Saratoga Springs, who informs me that he has experienced in his own person, great relief from the use of the medicine, and has witnessed the same effect in others. As a general rule, the patient is benefited after a few days' employment of the article, but some cases will require more time, perhaps weeks before they improve; in one of mine, a very severe case of over twenty years' duration, I persevered for nearly three months, before there was any decided amendment.

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* Hitherto, it has invariably, and in numerous instances, answered perfectly all these indications.

I feared, at the outset, that the medicine would prove to be merely a palliative (and even then it would be invaluable), but further experience warrants my belief that in mild cases of recent date a cure may be effected by its means.

In almost one fourth of my cases, relapses have occurred after discontinuing the remedy; this occurrence, however, was in most of them owing to severe attacks of catarrh, or to errors in diet and consequent derangement of the digestive ogans, which, by the way, should never be overlooked in the treatment of asthma; I may mention in this connection, that most of my patients, while using this medicine, had an excellent appetite and gained flesh rapidly.

A long continued use of the Iodide of Potassium will in some subjects occasion an eruption, generally of a pustular form (almost always ecthyma); and I have twice been disposed to attribute to it the occurrence of a slight conjunctivitis; the omission of the medicine for a few days, together with a few doses of rhubarb and soda, will be found sufficient for the removal of these inconveniences. It would scarcely be worth while to offer at the present time any explanation of the modus operandi of this medicine in asthma; nor is it necessary here to describe the symptoms, pathology, &c., of the disease, my sole object being to bring into notice what I have found a successful remedy for a distressing complaint. Extended experience must determine its value and applicability.

From two to five grains of the Iodide of Potassium, given three times a day, dissolved in water or some syrup, as for instance that of Sarsaparilla or Tolu, will generally be found sufficient for ordinary cases of the disease. Its continuance must be regulated by the circumstances of each case; of course no intelligent practitioner, need be reminded of the attention requisite as regards diet, clothing and exercise. Dr. North stated that he had taken ʒss. at a dose at bedtime, without inconvenience, and with the effect of preventing the paroxysm usually occurring at night.

Some of your readers may perhaps find fault with this paper, on account of its crudeness of style, and want of method and arrangement; but the practical physician, who will make fair trial of the remedy, will hardly be disposed to criticise the style of the article, or consider as wasted, the time spent in its perusal.

Note.—It may not be uninteresting or irrelevant to mention that I have given the hydriodate of potash to several horses troubled with "the Heaves or Hives" (I am doubtful as to its orthography), and in all, while under the influence of the medicine, the disease was suspended.

Art. V.—*Case of Extensive Chronic Ulcer supervening on an Abscess between the Layers of the Muscles of the Abdomen.* By D. Camden De Leon, M.D., U. S. Army.

The subject of chronic ulcers is one that does not elicit much interest from the medical practitioner in general, on account of their tedious nature, and their tendency to assume a specific or constitutional character. They, however, as a class, deserve much more attention in a physiological and pathological point of view, than is usually accorded them. The subjoined case is transmitted for publication, as I conceive it to be one of some interest, from its extent and duration.

In November, 1843, I was consulted in the case of Mrs.——, who was suffering from an extensive chronic indolent ulcer, concerning the origin of which she gave the following account. For some time previous to her accouchement, which took place in October, 1842, she felt occasionally a dull pain in the lower part of the abdomen, on the left side. Her accouchement was attended with no difficulty (she being the mother of several children). A few days after the event, she was attacked with severe pain in the lower part of the abdomen on the left side, which was continual, and only relieved by large opiates. There was no external inflammation, but evidently an abscess forming between the layers of the muscles. Fomentations, poultices, etc., and the usual resolvents were used; an abscess, however, formed, and was lanced in December, and the usual treatment adopted. The ulcer nevertheless continued to spread, burrowing under the muscles of the abdomen, and attended with considerable discharge. It was freely and repeatedly incised, and caustics, astringents, and various other topical means, used to heal it. Sarsaparilla, alteratives and tonics, were used as constitutional remedies; but it continued all summer discharging, increasing in size, and burrowing under the abdominal muscles. Its extent was so great, and the discharge so profuse and debilitating, that the patient was unable to walk, but had to be lifted from place to place. The appearance and condition of the patient when I first saw the case, which was more than one year after its commencement, was as follows:—

The patient was extensively emaciated, and debilitated, from the excessive discharge: the muscles were loose, and as it were dissected up by the matter formed between the layers; the ulcer extended from about three inches above the anterior superior spinous process of the ilium of the left side, diagonally, to the symphysis pubis, with callous and inverted edges. The surface exposed was irregular in shape, about seven or eight inches long, and three wide in some places, and less in others, until it became a mere fissure. The edge, toward the umbilicus, was the whole length separated, and formed a loose flap which moved to and fro with the movements of the patient, leaving between the abdominal muscles for several inches a large secreting surface. The edge toward the anterior inferior spinous process of the ilium was in a sloughing condition; the general appearance of the granulations was indolent, smooth and glossy; the discharge was excessive, and soaked through all the dressings several times daily: various sinuses had formed at the upper and lower portions of the ulcer, which opened externally by several holes.

It is not my intention to give a minute account of the treatment, in this case, but only the general outline, with a few pathological considerations.

Looking upon the case when I saw it, as a specific ulcer, and the length of time that had supervened since the commencement of the disease making it constitutional, and the debilitated condition of the patient rendering the vital force unable to contend with the distressing cause, I thought the indication evidently was to brace up the system by tonics, and to endeavor by that means to suspend the hyper-secretion of pus. I therefore commenced the treatment, with large doses of the iodide of potassium in hop tea, giving from five to ten grains four times daily. Although this vaunted specific has become almost hackneyed, by the indiscriminate use of it, and the endeavor to prove it a panacea, still the effects of it in this case are interesting, and prove it a valuable alterative tonic. From a short time after commencing its use, the patient began to regain her appetite and strength; the hyper-secretion of pus was reduced, and in a short time she was enabled to walk a considerable distance without pain, or fatigue. The external treatment was as follows: pledgets of linen were applied on each side of the ulcer, longitudinally, so as to act as compresses, which were retained by long strips of adhesive plaster, extending around the body, and overlapping each other, so as to cover in the ulcer entirely. So many caustics and incisions had been tried, that as an application to the surface of the ulcer under the compresses, I used, at first, merely a weak creosote wash, and the aromatic wine; sprinkling over the surface rhubarb, calamine, and other slightly stimulating applications, and covering with oiled silk, I waited until the constitutional symptoms were relieved before stimulating severely. The general health not only improved, but the patient continued to increase in weight, under the use of this alterative tonic. To prove whether the local treatment was productive of this change, I several times stopped the administration of the iodide of potassium, for a week or more, continuing the other treatment: the invariable result was a loss of appetite, and a return of the excessive discharge: so much so, that the patient herself noticed the constant effect of the cessation of the medicine, and requested its re-administration. I also suspended the use of the hydriodate of potash, and used other alterative tonics—sarsaparilla, quinine and blue mass in combination, arsenic, etc.; but nothing seemed to act upon the secretion of pus, and the general health in this case, as well as the preparations of iodine. Under all other treatment the discharge would return in excess, and these would suspend it in a day or two. When the general health was in some degree restored, and the patient able to walk about, which was in a few weeks, I commenced the application of caustics to the ulcer, nitrat. argent. solid. and sulph. cupri, and astringent washes, Lugols solution, tinct. iodine, alum, carb. calc. ppt., calamine, acet. zinci, *et id omne genus*, alternating their use when they began to lose their effect, still the ulcer would not heal; the discharge stopped, but it remained indolent, without any effort to cicatrize.

"Lethalis arundo hæsit lateri."

In this stage, I alternated the treatment between iodid. ferri, in large doses, and iodid. potassii ; and applied externally pure creosote daily over the whole surface of the ulcer and under the loose edges. The patient did not find this application as painful as the solid nitrat. argenti, and it seemed to act more energetically; under its use the ulcer assumed a more healthy action, and after some time it was discontinued, and Cooper's nitric acid lotion, strong solution of chloride of lime, &c., used. All constitutional treatment was now discontinued, as the general health was restored. A combination, which I have found very serviceable in this, and several other indolent ulcers, is this, ℞ ungt. picis ℥ i, carb. calc. ppt. ʒ i, creosote gtts. xv, to gtts. xxv; ft. ungt., to be applied daily on lint. The astringent application, however, that proved most valuable in this case, and the effects of which were of most undoubted benefit, was the tinct. diasp. virgin. undiluted; applied daily by means of wet compresses, and the ulcer also being washed with it. The preparation used was the strong acetous tincture. I had never tried it in a similar case before, but from the great benefit I had derived from its use in inflammations of mucous membranes, was induced to use it. The ulcer commenced to improve rapidly, and by its continued use healed entirely. The sinuses also commenced to fill up, and by painting the indurated surface frequently with a saturated tincture of iodine, the whole contiguous surface assumed a healthy action, and the induration was gradually absorbed. I directed the patient, however, to wear the adhesive straps as a support for some time, as there had been necessarily a great loss of muscle, and the skin was very delicate over the surface of the old ulcer. The loose flaps, which by the pressure and stimulation threw out granulations, and adhered and healed up, required support to prevent any chance of their disruption also.

There are several points of interest connected with this case.

1st. The slow progress of the formation of the abscess in a healthy, although delicate woman, as long as pressure was kept up by the distension of the abdominal muscles, and the rapid formation of pus as soon as the accouchement took place, almost immediately after, although its deep-seated situation rendered, at first, the diagnosis doubtful, is worthy of note, as it tends to show the great effect that pressure has in retarding the formation of pus.

2d. The effects of the preparations of iodine in decreasing abnormal secretions, and increasing healthy ones.—The secretion of milk, in this case, was abundant, during the use of these preparations, for more than five months, almost continually ; and the secretion of pus was reduced from the commencement of their use, and gradually stopped entirely. I think this fact would tend to prove the opinion advanced by Dr. Zimmermann of Berlin, "That pus, before it can be reabsorbed, undergoes certain changes, which render it more fitted, as well for absorption, as for further elimination, by the excretory organs, and that pus corpuscles, or molecular fibrin, are directly eliminated through the kidneys." The known effect of iodine on these organs may well tend to the conclusion, that its action in retarding the formation of pus, may be, by the fibrinous elimination through these excretories. The constant secretion of milk, and the progressive fattening of the patient, who gained flesh under its use, would evince, that its action was not on the glands and absorbents in a healthy state, further than slightly stimulating their action ; and that it has some specific effect on abnormal secretions. Our knowledge, however, of the absorption of pus is so little understood, that until we have further researches, the action of absorbents will continue to be uncertain. That the effects of preparations of iodine are of an alterative tonic character, and increase the development of the adipose tissue and healthy secretion, I am induced to believe from an extensive use of them; and that their action in reducing glandular enlargements is to be attributed to these effects, and elimination through the kidneys, more than to any specific action on the glandular system, I think may be deduced from the preceding remarks.

3d. The effects of pressure and stimulation, in producing adhesion, instead of absorption, between the loose muscles, that had become a perfect secreting surface, from the length of time it had been discharging.—My object in the pressure was more for the purpose of producing a gradual absorption, or sloughing of the detached surface, than from any hope that adhesions would form. Excision of the loose flap was not justifiable, from the state of the patient's general health, and on account of the extensive open surface that would have been left exposed. Incisions through various parts had been made without effect, and it was only through gradual absorption that I could hope to get rid of this hindrance to healthy granulations: thus it was with surprise that I saw extensive adhesions forming on these loose abdominal muscles, and finally the whole unite. I will now conclude these remarks, having been led into a more discursive article than I intended, from a conviction, that even the humblest votary in pathological investigation should have for his motto:—

> "Neque si nimium erigere
> Nec subjacere serviliter."

Fort Pike, La., Nov., 1844.

Art. VI.—*On the Nature and Uses of Aconitum Napellus.* By John C. Peters, M.D., of New York.

The exact action of this drug, as is the case with all others, is still in dispute. Vogt (Professor of Materia Medica in the University of Giessen) places it among the acrid narcotics, but in company with conium, tobacco, and digitalis, which others regard as sedative narcotics, and with cicuta virosa, pulsatilla, chelidonium, cocculus indicus, rhododendron, and secale cornutum, which are either acrids or narcotics. Sobernheim, of Berlin, also regards it as an acrid narcotic, and classes it with digitalis, conium, pulsatilla, ledum palustre, secale, tobacco, rhus toxicodendron, dulcamara, &c. Dierbach (Professor of Materia Medica at Heidelberg) looks upon it as an acrid diaphoretic, and compares it with ledum, rhododendron, rhus tox., dulcamara, pulsatilla, and chelidonium. Afles, of Vienna, places it among the acrid diaphoretics in company with rhus rhod., puls., and dulc. Pereira says it belongs among the Ranunculaceæ, most of which are poisonous, with a prevailing acrid quality, often conjoined with a narcotic, and occasionally with a benumbing power. Giacomini regards it as a true sedative, or contra-stimulant remedy; while the Homœopathists think that it excites inflammation more readily than any other drug.

We have collected together about twenty-five or thirty cases of poisoning with this plant, and will endeavor to arrive at some positive conclusion as to its action. In the Medico-Chirurgical Review, volume 31, p. 544, we learn that Dr. Pereira and his colleagues of the hospital at Bordeaux, had for years been in the habit of employing the alcoholic extract of aconite, in doses of three to ten grains a day, in chronic rheumatism, neuralgia, paralysis, &c., without accident, until some fresh extract had been obtained, and five grains administered to three patients. One of these died in three hours, and the other two became alarmingly ill. In about fifteen minutes after taking it they experienced the usual effects of this drug, viz., tremors in the muscles of the thighs and arms, and a prickling, starting sensation in various parts; but these symptoms, instead of ceasing as usual in a few minutes, increased in force so as to approach convulsive movements; a sense of great irritation along the throat, followed by severe vomitings, came on; during the convulsions they became quite unconscious; afterwards speech was restored, but vision was still confused, and a most intolerable, hot, scorching headache supervened; the skin was covered with a cold sweat; the pulse slow and irregular, but the respiration short and hurried. On listening to the impulse of the heart, it was found that the stroke of its apex against the walls of the chest was often interrupted, while the ventricles continued to expel their contents, for the pulse often beat thrice for one of the heart. Dr. Pereira thought stimulant treatment was required, as there was *défaut d'innervation* in the circulatory and respiratory systems.

Another patient, from taking five grains, experienced the same trembling of the muscles, increasing to genuine convulsive movements, lasting about fifteen minutes, with loss of consciousness; to this succeeded recovery of speech; confusion of vision; fixed burning headache, as if a hot iron were thrust through his brain from one temple to the other; extreme heat in the mouth; irritable stomach, so that any food or drink was rejected as soon as swallowed; respiration hurried and uneasy; pulse slow, irregular and weak; the limbs of icy coldness, and the movements and sounds of the heart confused and disordered. As another patient had sunk from gradual and progressive cessation of respiration and the pulse, stimulants were resorted to, viz., ammonia, cantharides, coffee, &c., with success.

The third patient died in four hours after being suddenly seized with burning in the throat, repeated vomitings, great anxiety, icy coldness of the limbs and body, syncope, and a sort of arrest of the circulation. The post mortem appearances will be detailed subsequently under the head of Post mortem No. 1.

In the same Journal, volume 34, page 498, we find a report of twelve cases of accidental poisoning, three of which were fatal. In one case there was dyspnœa, vomiting, great anxiety, and death in a few hours.

Two women became restless, convulsed—at length paralytic, and then died.

The remaining nine recovered, but were all affected with the following symptoms: rapid prostration of physical and mental energy; dilatation of pupils; distressing headache; vertigo; pain and tension of abdomen, with borborygmus and vomiting of green matters; great anxiety; oppression of the chest; coldness of the whole body, especially of the limbs; blueness of the nails; cramps in the legs; small and fluttering, occasionally imperceptible pulse; in short everything indicating a state of extreme hyposthenic or general prostration. The reporter thinks these cases most distinctly confirm the opinion of Giacomini, that aconite is a direct sedative or hyposthenic drug, and that modern toxicologists have committed a serious error in regarding it as an acrid-narcotic, requiring antiphlogistic treatment, instead of stimulant, to counteract its effects. This view is corroborated by the autopsic appearances. (See Post mortems, 2, 3 and 4.)

MATTHROLUS gives the case of a criminal who was intentionally poisoned with it: excessive weakness, weariness, convulsive movements of mouth, eyes, and neck; then fainting, vomiting, stupor and death.—Quantity, 3 drachms of root.

PALLAS, 5 cases, with burning from throat to stomach; colic; tenderness of belly; sense of swelling of the tongue and face; vomiting and purging. (See Post mortems 5 and 6.)

In one case the face was bathed in a cold sweat; there was total loss of sensation; fainting fits; spasms; vomiting of bilious matters; swelling of belly and death in apoplectic state.

In another case, the patient imagined that the blood no longer circulated through his limbs.

A child had his mental faculties fearfully impaired by it; no recollection of former pursuits; inability to comprehend the simplest matters; was in fact obliged to be treated as a mere baby, and to learn his alphabet over again.

In Pereira's Mat. Med., we find three cases detailed; in one there was burning and numbness of the lips, mouth and throat, which soon extended to the stomach; violent and constant vomiting; limbs cold, but chest warm; head bathed in a cold sweat; eyes glaring; violent pain in the head; trembled excessively; lips blue; mental faculties not disordered; no cramps or spasms; he frequently put his hands to his throat; though excessively weak he did not lose control over his limbs, but could walk with assistance; breathing unaffected; bowels were not moved till after he had taken castor oil; expired in a fainting state shortly after going to stool. Quantity: 3 roots, each of the size of a very small English walnut.

The wife of the above ate half of a root, and was affected in a similar manner; had the same burning and numbness of the lips, mouth, throat and stomach; violent vomiting; curious sensations of numbness in the hands, arms and legs; could utter unintelligible sounds only; great muscular debility; inability to stand, with stiffness and difficulty of moving her limbs; though her eyes were wide open her sight was very dim; sensibility of body generally impaired; face and throat almost insensible to touch; great giddiness; body and limbs cold; she was frequently pulling at her throat, she knew not why. Treated with rum and water and other stimulating remedies; she recovered.

Their child of five years of age was similarly affected, but more slightly; she had a slight tendency to sleep; like the others she was constantly pulling at her throat.

A female, after taking some of the tincture of the root, was seized with a pricking and tingling down her arms and fingers; painful numbness across the wrists, then in the mouth and tongue, and finally in the legs and feet; face seemed to swell, and her throat grow tight; nausea and many efforts to vomit; her legs failed her; was almost blind, yet conscious; eyes fixed and protruded; pupils contracted; face livid; jaws and fauces livid; arms and hands quite cold and pulseless; after several hours her pulse began to rise; it was only 58, irregular, feeble and intermitting.

Christison gives a case marked by tingling in the jaws, subsequently extending over the whole body; sensation of swelling of the face; twitching of the muscles; fixing of the eyes; lock-jaw; failure of the pulse and breathing, but without any aberration of the mind.

One dog poisoned by Christison had giddiness and starting; another had palsy of the hind legs, great weakness, staggering, convulsive twitches of the head, &c.

Pereira asserts that dogs poisoned with aconite may be pinched, cut, or have pins stuck in every part of them, without evincing any sign of pain, and yet be able to walk about.

POST MORTEM APPEARANCES.

No. 1.—Veins of cerebral membranes were highly congested; the divided substance of the brain exhibited numerous points of dark colored (venous) blood; lungs congested with black (venous) blood, and much less crepitant than usual; the right (or venous) cavities of the heart filled with a thick blood which had all the appearance of currant jelly; the stomach was spotted with numerous patches of a brown color, especially towards the cardiac portion; the liver and spleen were gorged with black blood.

Nos. 2, 3, and 4.—Vessels of pia mater and arachnoid highly injected; a small quantity of serum at the base of the brain; the lungs were gorged with blood; the heart was flabby and contained only a small quantity of dark fluid (venous) blood; patches of vascular injection in stomach and bowels; spleen extremely soft. The reporter adds, "we observed no genuine traces of inflammation in the bodies of those who had fallen victims to this poison, while the flaccid state of the heart, the softened lacerable condition of the spleen, the emptiness of the large arteries, and the passive stasis of the blood in the lungs, all tend to prove that death was the result of a general prostration of the vital powers."

Nos. 5 and 6.—The stomach and small bowels were very red; the gullet and rectum red; the lungs dense, hard and gorged; the cerebral vessels turgid.

Vogt asserts that with the exception of the overfilling of the great abdominal vessels with venous blood, we find but few traces of affections of the intestinal canal in cases of poisoning with aconite, similar to those which the acrid or phlogistic remedies produce; he adds that violent poisoning with it is characterized especially by an excessive predominance of venous congestion, and accumulation of venous blood in the head, chest, liver and whole abdomen.

Noack and Trinks, who are undoubtedly the best writers on the materia medica among the homœopathists, give the post mortem appearances as congestion of the veins of the brain and its membranes, and of the lungs; also of the blood-vessels, especially the veins of the intestines; while the liver and spleen are filled with much blackish (i. e. venous) blood. They assert that the throat, stomach and bowels as far as the cœcum, are found very red and inflamed, which assertion is corroborated by the post mortems of Pallas, viz. Nos. 5 and 6. It seems conceded by all parties that aconite does not produce inflammation but merely venous congestion of the brain, lungs, liver and spleen: the only point in dispute is whether it causes inflammation or venous congestion of the stomach and bowels. The only proof in favor of the first supposition is the presence of redness; but no pathologist of the present age will admit that redness unaccompanied by softening, or the effusion of lymph, fibrin, pus, &c., is proof sufficient of the existence of inflammation. Pereyra (not Pereira, the professor of Mat. Med.) insists that the mere existence of patches of redness here and there along the alimentary canal, which even Noack and Trinks admit depends upon congestion of the abdominal veins, does not prove the existence of genuine inflammation, as this appearance is observed in almost all cases when life is extinguished from the action of sedative agents. Again, Noack and Trinks sum up the action of aconite, as consisting in producing predominant arteriality, followed by consequent obstruction and accumulation of (blackish-fluid) blood in the venous system; whereas, it is well known, that the venous blood in true inflammation becomes more arterial, red, plastic, and more firmly coagulable; hence we regard it as settled, that aconite does not induce true inflammation, but merely venous congestion of the stomach and bowels. This view is further corroborated by Lombard, of Geneva, who experimented with aconite, mainly to determine its action upon the heart; he found it to diminish the frequency of the beats of this organ, and hence drew the conclusion that it exerts a directly sedative action upon the circulation, and is a proper remedy in active diseases of the heart, and in inflammatory diseases generally. Pereira (see Mat. Med.) says aconite appears to weaken the action of the heart and paralyze it; and Dunglison asserts, that in cases of poisoning with it, the contractions of the heart have been found diminished and almost suspended. In point of fact, none of the narcotics induce genuine inflammatory affections; opium, belladonna and stramonium increase the fulness of the pulse, and make the face flushed and hot, &c.; but these phenomena also occur in typhus fever, in which the blood is in exactly an opposite state to that which obtains in inflammation. Hence the conclusion is irresistible, that aconite is not homœopathic, but antipathic to inflammation; its action approaches nearest to that of tartar emetic, digitalis and tobacco; all cures of inflammation, reported by the homœopathists as effected with the 30th, or other high dilutions of aconite, are fictions—nature has effected the cure; but, on the other hand, full doses of aconite, if the old school theories and laws be correct, must prove as serviceable in true inflammations as tartar emetic or digitalis. Before Hahnemann and Homœopathy came upon the field, Rasori, Borda, Busch, Beaumes, and many German physicians, were in the habit of administering aconite, after the first violence of the inflammation had been broken by blood-letting, &c., and with success.

Again, in the Hanoverian Annals of Collective Medicine, part 6, page 690, we find an article in recommendation of aconite in acute inflammations by Dr. Kindervater, of which the following is the substance: "Aconite is often administered in chronic rheumatic affections, but simple experience has taught Dr. K. to use it in active inflammations and in acutely inflammatory and febrile conditions. After the excessive turgor has been lessened in acute inflammations, physicians do not hesitate to give opium, hyosciamus, crocus, digitalis, dulcamara, senega, camphor, &c. &c., all of which excite the action of the heart and arteries, and why should they fear to give aconite, which under like circumstances is almost a specific against acute rheumatic inflammations?" Ten years of experience have convinced him of the "safe, rapid and perfect curative action of aconite in acute internal inflammations caused by taking cold." The advantages of the aconite treatment are that the course of the disease is very much shortened and convalescence proceeds far more rapidly when it is used. Dr. K. says he has treated very many cases of pneumonia and pleurisy, in which all signs of inflammation were removed by the third day, and on the sixth or seventh, the patient was generally able to return to his business. The crises by sweat and urine take place much sooner, and are carried out more perfectly and powerfully; while each dose often induces a very quiet and refreshing sleep, which opium, lauro-cerasus, hydrocyanic acid, &c., rarely do. The whole disease is cured more thoroughly, while irritability of the air-passages, predisposition to catarrh and relapses, and general debility, which so frequently cloud the period of convalescence under the usual mode of treatment, do not occur. In pneumonia of children, general and profuse sweat, ease from cough and pain soon set in, and the whole disease is cured in a few days. When excessive irritability of the nervous system is to be relieved, and sweat is to be established, aconite acts admirably. Dr. K. flatters himself to have taught the profession something quite unknown previously; he knows full well that Stork and Borda were in the habit of using Aconite in acute inflammatory diseases, but he thinks that his endeavor to "rescue a great truth from oblivion" is also entitled to some praise. He usually commences the treatment by a v. s. of from 10 to 20 ozs., and asserts that it is very rare that he is obliged to repeat it. The dose of the powdered leaves is from half to one grain, for adults, repeated every 2, 3, or 4 hours; of the fresh tincture, from 15 to 30 drops; of the extract half, 1 or 2 grs. per dose.

The only point with which we feel disposed to find fault with the above, is Dr. K.'s assumption that he has rescued a great truth from oblivion. It is well known that the celebrated Lombard, of Geneva, long ago advised aconite in acute articular rheumatism; he declares that it acts neither as a derivative, counter-irritant, nor sudorific, but as a specific remedy against acute rheumatic inflammations, and that it very promptly arrests the pains and tumefaction of the joints, and disperses the effusions of synovia contained in them when attacked with acute rheumatism. But before either of them, Hahnemann revived the use of this drug in acute inflammations, and thus furnishes ready to our hands one of the most striking instances of the fallacy of his theories, while it proves that even he may stumble upon efficient remedies. Many of Hahnemann's boasted discoveries are merely revivals; thus arnica was once a popular remedy all over Germany, against the effects of falls, blows, sprains, &c. &c.; now even the majority of the Homœpathists believe that Hahnemann's experiments upon the healthy subject first lead to this application of arnica to the treatment of disease.

Art. VII.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

Erysipelas of the Face translated to the Brain; accompanied with a peculiar state of the genital organs. By J. G. Adams, M.D.—In the month of July last, during a visit to Avon Springs, Livingston county, I was requested by Dr. Butler, of East Avon, to consult with him in the case of Squire B——, aged about 60 years. On our way to the patient's residence, I learned from Dr. B. the following particulars of his case:

On Wednesday afternoon, five days previous to my seeing him, he had been attacked with a severe rigor of four hours' duration; on the following morning a bright scarlet spot appeared on the left cheek near the ala of the nostril, accompanied with slight fever and some derangement of the digestive organs; the remedies used, consisted of purgatives and diaphoretics, under the use of which he appeared to be convalescing. On Sunday afternoon, without any apparent cause, the spot disappeared from the cheek and he became delirious, requiring restraint; the posterior part of the head was observed to be of much higher temperature than the forehead, though both were equally exposed; he evinced strong sexual propensities; the penis was in a state of constant erection, and when any of the females of his family came into the room, he would make an effort to get hold of them. His hands were also continually occupied, so to speak, with his genitals. (I may remark that his temperament was lymphatic, and that he had been a man of exceedingly regular life, and unusually moderate in all his passions and desires.) Dr. Butler, immediately on seeing him, had opened a vein in the arm, but symptoms of collapse soon coming on, he was obliged to desist after a very few ounces of blood had flowed; iced cloths were applied to the head, with counter-irritation to the extremities. After a slight reaction had been established, moderate purgation was resorted to, combined with diaphoretics. The pulse continuing low and feeble, the Dr. had ventured on the use of quinine in small doses, but without benefit.

On arriving at the house, I found the patient in a state of extreme jactitation; eyes staring wildly; conjunctivæ much injected; pupils contracted, but not insensible to different degrees of sight. There was no redness or tumefaction of the face or head; skin of the forehead not above the usual temperature, but over the nucha and posterior part of the head, the increased heat was very remarkable; his hands were in constant motion, playing with his penis, which was now in a semi-flaccid state. He was unable to articulate, and could be made to swallow only with considerable difficulty; urine and fœces passed involuntarily; pulse about one hundred, and feeble, yet his muscular power continued to retain considerable vigor.

I recommended the use of camphor and hyosciamus, with wine whey; an iced bladder to the head, and sinapisms to the extremities. The symptoms continued without alleviation until 6 P. M. of the same evening, when death ensued after a violent convulsion, being the sixth day of the disease.

Autopsy fourteen hours after death.—On removing the scull cap, the vessels of the dura mater were found engorged with blood, and the membrane, in some parts, had a rosy tint, with patches of lymph at several points, more particularly on the lateral surfaces and near the tentorium. On making sections of the cerebrum in various directions, the red points were found to be very distinct and in large numbers—the ventricles contained the usual quantity of fluid, and presented nothing anormal. On dissecting off the tentorium, the cerebellum was found in a softened condition, so that it was lacerated in taking it out of the skull; it was so soft that the fingers could be easily driven through its substance, and the sections presented marked evidence of high inflammation. The arachnoid at the base of the brain, was reddened and thickened with the deposit of lymph

The examination was necessarily conducted in a hurried manner, and almost by stealth, owing to the strong opposition of one of the relatives.

New Operation for Anchylosis.—Dr. Buck detailed the various steps of an operation which he had recently performed for the purpose of procuring straight anchylosis of the knee-joint, instead of that which existed, where the leg was at a right angle with the thigh. The anchylosis was the result of a wound made by an axe about seven years since, and the operation consisted in removing wedge-shaped pieces of bone from the extremities of the tibia and femur. [We hope that Dr. Buck will furnish us at some future period, with a detailed statement of this operation—an ingenious modification of that of Dr. J. Rhea Barton—together with the result, and history of the case.]

Traumatic tetanus following a simple fracture of both bones of the fore-arm—amputation—death.—Dr. Bulkley mentioned the case of a boy 13 years old, a native of Ireland, in good health, but of rather a delicate constitution, who fell from a cart on the evening of 26th Oct., and fractured both bones of the fore-arm at its lower third; patient was seen soon after the accident, when the swelling was but moderate; there was but a slight wound of the integuments, not extending to the muscles. The arm was dressed with a splint and loose bandage, and the part kept wet with a cooling lotion; the following day, it was loosely bandaged in the usual way, and the day after, the bandages were put on rather more closely. On the 3d day, it was in so comfortable a state, that no change was made in the dressings. This state of things continued until early in the morning of the 6th day, when, after a more comfortable night's rest than any that he had experienced since the injury, he was seized with pain in the arm, which was quite severe, until 11 A. M., at which time there was found some displacement of the end of the bones, with considerable spasmodic action of the muscles; the bandages were removed, and the arm again dressed as before, with an expression of relief on the part of the patient, so that nothing led to the suspicion that tetanus would supervene. On the following day, however, the pain had become very severe, with spasmodic action of the muscles, a rapid pulse, and a countenance strongly indicating tetanus. Dr. A. C. Post, who had previously assisted in bandaging the arm, was now requested to see him, with Dr. B. By this time, the symptoms of that disease were unequivocal. He was immediately put on the use of laudanum every two hours, and injections of tincture of assafœtida, every alternate one commencing with twenty drops of the former and ʒj. of the latter. Dr. G. Buck was then added to the consultation, and at 6 P. M., Drs. J. K. Rodgers and F. C. Stewart were also requested to meet these gentlemen. The symptoms had increased in severity, and it was decided to amputate the arm, for the purpose of removing the local cause of irritation, which was now extreme, and was aggravating the sufferings of the patient, and also for the sake of the slight chance for life, which this has been thought to afford in some cases. The limb was accordingly removed above the elbow, by Dr. Post, about 8 P. M., and with decided relief of the symptoms at the time, so that the passage of the knife in making the first flap, seemed to quiet, rather than disturb the patient. The symptoms, however, returned with increased severity, after the lapse of about half an hour, and continued to increase until four P. M. of the following day, when death came to his relief. The laudanum and assafœtida were continued through most of the day, though not with so much regularity as was ordered, from the extreme repugnance of the friends to trouble the patient to take them. Brandy and water was also given, in increasing doses, during the night and following day, and ointment of snuff (teaspoonful to a tablespoonful of lard), applied several times to the spine but nothing seemed to interfere in the least with the progress of the disease, except the momentary palliation which seemed to result from the amputation of the arm.

Hydrophobia in a Child.—Dr. Griscom reported a case of hydrophobia occurring in a lad between 7 and 8 years of age. He was first seen on Saturday evening, November 23d; was then quietly asleep, but soon exhibited symptoms of a convulsive effort in the chest and throat, which in a minute or two roused him up, when he stared wildly, and looked as if agitated. He was easily quieted, however; the paroxysm subsided in a few moments, and he became calm, except he attempted to answer a question, when the agitation would partially recur. His tongue was white, with nausea, and attempts at vomiting. He had no hesitation in attempting to drink, but the effort produced the same convulsive action of the throat. I directed an emetic, and left him till next day. At this visit the thought occurred to me, that the convulsive efforts I saw, very much resembled those I had read of as occurring in hydrophobia, but the idea of this being a case of that disease, did not enter my mind, nor was it alluded to by either of the parents; knowing also that the child was of a peculiar nervous temperament, I regarded the symptoms described, as only sympathetic of gastric disturbance. The next day he was in about the same condition—the emetic had operated slightly, but his bowels had not been moved. He had occasionally the same paroxysms of œsophigeal and respiratory *convulsiveness* as noticed yesterday, but not in any greater degree. A purgative was administered.

On the third day of my attendance (the fourth of the disease), before entering the chamber, the father asked me if I thought there was anything like hydrophobia in his boy. I asked him why he questioned me on that point. He replied that about 6 or 7 weeks before, he (the boy) had been bitten in the cheek by a dog, that was a stranger to them, but was of a sulky disposition, hiding away in the day-time, and coming out in search of food, only at night; no other symptoms of madness, however, had been noticed in him, and he was shot two days afterwards.

I found the little patient, when I entered his room, so much better, that the idea of this dreadful disease was almost dispelled, if it had been formed. He was quiet; scarcely any appearance of the convulsiveness remained; he could talk and drink almost naturally. I then recollected having been spoken to about the wound, at the time the accident occurred, but had not seen the patient, and as it healed up in due time, no more was thought of it until now. It had been over the right malar bone, where the eschar was still seen about an inch long, and slightly raised. Another slight wound was observable under the lower jaw, made, I presume, by the under teeth of the dog.

On Tuesday (the fourth day of my attendance), I was called before daylight, the patient being much worse. He was now greatly convulsed, not only in the throat, but also in the face and limbs, *apparently* suffering much, but when questioned thereupon, denied feeling any pain, except a little in the head. When soothed by kind words or actions, he would control his agitation; when requested to drink some water, he would take the glass unhesitatingly and take a mouthful from it, but would be some seconds in swallowing it, the action resembling very nearly that seen in attempts at swallowing in ordinary sore throat, but giving no pain. At 9 A. M., Dr. Isaac Wood saw him with me; he was then *spitting*, and made frequent efforts to vomit. The eyes were wildly staring; the convulsive agitation continued; efforts to walk resembled chorea St. Viti; slight heat of head; the pulse was over a hundred, and small. We could not yet pronounce the case positively to be hydrophobia; irritation of the great nervous centres, as hydrocephalus appeared more likely the cause of the symptoms. Two leeches were ordered to each temple, croton oil having before been applied over the spine. At 3 P. M., there was no longer any doubt as to the nature of the disease; the convulsions were redoubled in frequency and force, and were almost incessant; frothy saliva was pouring from the mouth and throat in immense quantities; the wildness of expression was greatly increased; the difficulty of deglutition was also increased, though there was no *fear* of water, nor yet any hesitation when asked to drink it. Two grains of calomel every hour, was ordered. At 6 P. M., Drs. J. M. Smith and Swett saw him with me; the discharge of saliva was then much abated, and the convulsions were less vigorous, but the peculiar expression of the countenance—mingling terror and anxiety—the state of the pulse, over 160 and very small, and the mucous râle in the bronchia, decided them at once as to the character of the disorder. Dr. Swett having stated that he had used the *gunja* in three cases of hysterical and tetanic convulsion in the hospital with decided benefit, it was agreed to try its effect here, especially as it held out the only possible chance of usefulness. It was accordingly administered in doses of half a grain every two and a half hours. Before the second dose was given there was a marked diminution in the convulsions, and *no more were observed* till his death, which occurred at half past two, the next morning. He was watched from ten the evening previous until his death, by Mr. Lewis Beach, an intelligent student of medicine, who reported that he continued quiet and rational until the close; that he discharged no more saliva, and that its accumulation in the bronchiæ appeared to be the cause of his death, as it entirely interrupted his breathing. His pulse continued 160 and over until the last. He took but two doses (in all one grain) of the *gunja*. He was too feeble to take the third at its proper time. He died on the sixth day of the irruption of the disease, and 7 or 8 weeks after the bite.

Death from Compression of the Umbilical Cord.—Dr. Griscom also reported the following case. A highly respectable and intelligent lady became *enceinte*, as she supposed, about eight months ago. The menses disappeared; the breasts became distended with milk, and continued so until the 18th inst. She, however, required my attendance occasionally, on account of irregular uterine hemorrhage, unaccompanied with pain. She was otherwise in excellent health. Last week she received information of the sudden loss of a friend, which caused her great grief; this induced severe pain in the uterine region, at first intermittent. The uterine tumor seemed about the size of my fist. In a few hours the pain became uninterrupted and excessive, and after a time, an ovum was expelled rather larger than a goose egg. It was found to contain a well formed fœtus of *three or four months.* On examining it, I found the umbilical cord, which was longer than usual, wound around the leg, nearly a dozen times, as closely as thread upon a spool. It required as much force as I thought the cord would bear to unwind it. The cause of the death of the fœtus was now apparent—as the limb grew, the cord became compressed, and eventually the circulation through it suspended.

PART SECOND.

Critical Analysis.

Art. VIII.—*New Elements of Operative Surgery.* By Alf. A. L. M. Velpeau, Professor of Surgical Clinique of the Faculty of Medicine of Paris, &c.; carefully revised, entirely remodelled, and augmented with a Treatise on Minor Surgery; illustrated by over three hundred engravings, incorporated with the text; accompanied with an Atlas, in quarto, of twenty-two plates, representing the principal operative processes, surgical instruments, &c. First American, from the last Paris edition. Translated by P. S. Townsend, M.D., late Physician to the Seamen's Retreat, Staten Island, N. Y.; augmented by the addition of several hundred pages of entirely new matter, comprising the latest improvements and discoveries in Surgery, in America and Europe, up to the present time. Under the supervision of, and with notes and observations by, Valentine Mott, M.D., Professor of the Operations of Surgery with Surgical and Pathological Anatomy, &c. &c. &c. In 3 vols. 8vo. Vol. first, pp. 915. H. G. Langley, New York, 1845.

We have, at length, after considerable, and as it appears, unavoidable delay, the pleasure of seeing before us the first volume of M. Velpeau's Operative Surgery, as rendered into English by Dr. Townsend. The late hour at which this ponderous volume has reached us, prevents us from entering, at present, as fully as we should wish, into an examination of its contents. We have seen enough, however, to know that the version is a literal one; and that the comments, annotations, and supplementary articles, by the American editors, are numerous and important.

This treatise by M. Velpeau is, indeed, one of no ordinary character; and is not to be heedlessly touched by the finger of a reviewer. Like Vitiges, the Goth, at the siege of Rome, he should at least pause for breath, before attempting to grapple with it. For, with M. Velpeau and Dr. Mott, as the Belisarius and the Narses of the citadel,—their stores abundant, their walls well-trenched, well-manned, and well-appointed,—what Lombard, Goth, or other barbarian, would dare to attack them rashly! As for ourselves, the utmost we can attempt, on the present occasion, is to reconnoitre at a respectful distance, to pick up an occasional corps of straggling foragers, and to prepare the way for a future and more systematic attack, at such points as are supposed to be most vulnerable; yet without the hopes of ever seriously impairing the strongholds, or of leaving a permanent impression upon the fair form of this time-surviving city.

But, dropping the metaphor, and coming to the work in hand, we may state that after a hurried perusal of several sections of the present volume, in which we have taken frequent occasion to compare the version with the original, we are satisfied that Dr. Townsend has executed his task, as translator, with commendable ability. With one or two trifling exceptions, we have seen nothing to lead us to doubt that he has followed the original as closely as the genius of our language would allow. But in some places, particularly among the early pages, he appears to have sacrificed elegance of diction, and idiomatic English, if not perspicuity and correctness, in order to reach what he considers the true meaning of the author.

This last observation may be at once verified by referring to the title-page, in which M. Velpeau is styled "Professor of Surgical Clinique." The term "clinique" in English, or as Dr. Mott prefers, in Anglo-American, is usually applied to a bed-side lecture, a practical discourse on cases of disease immediately under treatment; or, by metonymy, to the place where such lectures are delivered. We have never before met with it, as an abstract noun, in the sense given to it by Dr. Townsend.

The volume before us is introduced by two prefaces; the first, by the translator; the second, by Dr. Mott. To these we must, of course, pay our respects.

Dr. Townsend sets out with noticing the merits of the original work of M. Velpeau, and the high estimate placed upon it by those who have had the best opportunity of testing its value. In all which we cordially coincide. He next gives his own estimate of M. Velpeau, as the historical expositor of operative surgery, an estimate somewhat over-drawn, and perhaps greater than can be fairly attached to any surgical author that has ever written. We are not disposed to doubt that M. V., though probably not much of a linguist, is a man of great professional erudition, and of "unconquerable application and assiduity." We would not have it implied, that with these aids, he has not attempted to give "the *true* history of every operative surgical process, principle or discovery which adorn [adorns] or can illustrate the annals of the science. Yet we are not prepared to say that he has actually succeeded in this attempt; or to admit that he has given "specific references," as Dr. T. somewhat unguardedly declares, "to every name, authority, or work ancient or modern, upon which the proofs of his assertions and citations rest. For in the first edition of his book he gives none of these, and in the second, he gives most of them on the authority of French Journals. Nor are we even disposed to allow (having some proofs to the contrary), that M. V. has assigned "to every distinguished man who has ever adorned the annals of surgery, the exact measure of gratitude which the world owes to him for his services and discoveries." Praise of such unmeasured character, as before remarked, is applicable to no man; and in the present instance it is, to say the least, unnecessary. To give but a solitary example among others that we might cite of its incorrectness, we may refer to what M. Velpeau has said of Dr. Stevens's case of air in the veins; and which, by the way, Dr. Mott should have corrected. He not only flatly rejects this case as an example of this accident, but quotes it from a thesis of Dr. Cormack's, whose name he spells "Cornack," instead of citing it, as he might have done, from Cooper's Dictionary; and in all this, Dr. T. has, of course, followed him very literally.

In the next place, Dr. T. very properly calls the reader's attention to that part of the volume, which is devoted to anaplasty and tenotomy—subjects which occupy a large portion of it; and in connection with which

Dr. T.'s contributions and annotations have been most numerous and important. He refers to the vast amount of new materials furnished him by Mr. V. and others, all of which he has presented in a condensed form, either in the body of the work, or in his several appendices. He concludes with a modest exposition of his own qualifications for the task which he has undertaken, and of the principles which have guided him in his labor. On this last point we must allow him to speak for himself.

> "As to the absolute correctness and fidelity, therefore, of this English version of M. Velpeau's work, we venture, from the pains that have been bestowed upon it, and from some knowledge which we think we possess of both languages, to assert that we pride ourselves upon this production, as adhering as closely and rigidly as possible to the original text of the author, *verbum verbo*, at the risk of appearing, at times, to be speaking in an idiom somewhat Gallican.
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> "We preferred to err on this safer side, rather than to run the hazard, in a work devoted to one of the exact sciences, as we consider operative surgery to be, of making ourselves obscure, or perverting the true meaning of our author by any attempted circumlocution or improvement upon his pure and elegant diction.
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> "Like all other works of human labor, it doubtless possesses imperfections; none, however, we feel assured, of a grave character, and *not one blunder*, we almost venture to assert, in the matter of strict and legitimate grammatical translation. To which we should add, that the publishers have, in everything that relates to the typography and to the engravings, both in the body of the work and in the atlas, quite surpassed our most sanguine anticipations.
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> "I have been the more particular in a work of this extreme value, destined, as we hope, from its own merits, to be adopted generally in our schools, because the American press and the standard of American education and character have, of late years, all been not a little discredited and depreciated, by the *book-making* attempts of certain adventurers in the profession, who, having one object solely in view, that of pecuniary gain, have given to the world pretended translations of French, German, and other works, on anatomy, surgery, &c., the inexcusable and gross blunders contained in which, while they spread error and confusion to an interminable extent, indicate the utter incapacity of the individuals in question to undertake a task of this description.
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> "We profess to have been actuated by a higher feeling and purer motive in this labor, and we therefore consign it to the public without asking any other favor than that of a just and unbiased searching criticism upon its merits as well as its demerits."

The second preface, as before observed, is from the pen of Dr. Mott, and is, of course, in Dr. M.'s peculiar vein; evincing all his usual complacency and kindness of feeling;—and, we would be happy to add, if we could do so with propriety,—his usual command of good English. But Dr. M. prefers the "Anglo-American," and every one has clearly the right to use the language with which he is most familiar.

In this preface we find the correspondence between Dr. Mott and M. Velpeau, in reference to the present work. Dr. M., in his letter to M. V., gives the following reasons for undertaking his portion of the labor.

> "I have taken thus the liberty to enter my name as a *compagnon de voyage* with you, upon the great high-road of the science, where it has been so long our cherished pride, fortune, and pleasure to travel. Because I felt that in associating my labors with those which have received the approbation of your judgment, and which your genius and untiring industry have wrought out in your estimable work, as an enduring monument to your fame, I might find an appropriate place and guarantee for indulging the ambition that I, like others, must naturally have of seeing legitimately transmitted, through an orthodox and approved organ, for

the judgment of an impartial posterity, an authentic account at least (if only at best but an abrégé one) of my *stewardship* also in the great field of surgical science. This, so far as concerns myself (and independent of perhaps paramount considerations, to give wider diffusion upon this continent to your great and useful work), I felt admonished by the time of life at which I have arrived, to be due as well to myself and my own reputation, as to my country and profession.

"As such, then, my dear sir, I have ventured thus, while life is so short and art so long, to ask for myself a niche in the great edifice of surgical facts and truths of which you are the constructor and owner. I have to ask of you the privilege that I may be allowed within this storehouse, containing so much of the treasures of our science, to make safe deposite and registration of the detached fragments of the scaffolding at least, of that extended work of my own on Operative Surgery, which, as you are aware, I have for so long a time meditated, and of which these offerings must for the present be received as the pledge."

In M. Velpeau's reply, Dr. Townsend, as appears to us, might have seen some reason for qualifying his extravagant estimate of the author's accuracy.

"The corrections in relation to certain names of authors, and certain dates, must necessarily be numerous in a work of this description, so numerous, in fact, that I have not the courage to point them out. I flatter myself, moreover, with the hope that Dr. Townsend will rectify the greater portion of them."

Dr. T. has, no doubt, attempted to comply with this very proper and necessary request. But notwithstanding his endeavors, we have some reason to suspect that he has not been entirely successful.

Among the numerous and important subjects to which M. V. refers in his letter, we find him claiming as something new and original with himself, a peculiar mode of operating for exsection of the lower jaw. "My process," says he, "for amputation of the lower jaw, now consists in a curvilinear incision, which enables us to lay bare the whole disease, without dividing the lips, and leaves a cicatrix only in the supra-hyoidean region." Dr. Mott, however, disputes this claim with M. V., showing that he has long been in the habit of doing the same. We, too, have our humble reclamation to make in this matter, as might have been seen by referring to the N. Y. Journal of Med. and Surg., for October, 1840, vol. 3, p. 357. In this latter case, there remains no twisting of the jaw; the face is left without the slightest deformity, and the cicatrix, lying wholly below the level of the lower jaw, is visible only on minute inspection.

Following the two American prefaces, we find no fewer than three others; all by the author himself. Two only of these latter are introductory. The third is a sort of supplementary preface; and for that reason, probably, is styled by M. V., an Appendix,—evidently a misapplication of the term,—an appendix meaning something affixed or appended, and not something prefixed.

Among other matters spoken of in this supplementary preface, M. V. has introduced some very erroneous and unaccountable statements, with which Professor Gibson, of Philadelphia, has furnished him, in relation to the climate of this country, and its influence upon surgical diseases. These Dr. Townsend has refuted with becoming spirit. We must give both the statements and the correction.

"The ligature of the subclavian and iliac arteries has rarely succeeded with me, whilst that of the carotid, the brachial, and of the femoral in cases of aneurism of the popliteal artery, has generally been followed with the cure of the patient. I ought to say, however, that *aneurisms are not frequent in America; at New York, a city almost entirely inhabited by strangers, this affection is rarely observed but among individuals born in England.* I have rarely had recourse to the trephine in the case of fractures of the cranium, with lesion of the brain and its membranes. I have in such cases had reason to congratulate myself upon the success of the antiphlogistic treatment. *At Philadelphia, with the exception of six weeks of intense heats during the summer, and six weeks of intense cold during the winter, the temperature is constantly agreeable.* This circumstance is sufficient to explain why the results of our practice are more satisfactory than in Europe, and in the great cities like Paris and London, and than in more remote latitudes, where the extremes of temperature are prolonged to a much greater length of time. I cannot believe, for example, that the two Cæsarean operations in which I saved the mother and infant, would have succeeded as well at Paris as at Philadelphia. All these operations have been performed after the usual modes.

"[Professor Gibson appears to be under a misapprehension. both in respect to the character of the climate of the United States, and its influence upon curative surgical processes, and also in respect to the nature of our population at New York, as well as the non-frequency of aneurisms, and their limitation to persons from England.

"1. *Of the Effects of our Climate on Surgical Operations.*—So far from the climate of the United States being in the least degree entitled to the appellation of a *mild*, or equable, or moderate temperature and character, with only six weeks of extreme summer heats, and as many of intense cold in winter, it is proverbially known, all over the world, that all the northern portion of the United States, for many degrees of latitude, and especially its seaboard, is characterized by the most extraordinary and sudden vicissitudes of heat and cold, and of every other meteorological phenomenon. It was remarked by Volney, that an American never becomes acclimated to his own country; and this is not surprising, when we consider our protracted and most inclement winter of four to six months duration, of an almost polar severity, our long, wet, cold, and unwholesome spring of two or three months, and our violent heats often for months, during July, August, and September, in the middle portions of the day exceeding by many degrees what is ever known even in the tropics. [See my work on the *Topography, Weather, and Diseases of the Bahama Islands*, 1823–4–5; also my work on the *Yellow Fever at Havana*, 1830.]

"So far from our climate being, as Professor Gibson infers, a mild one, the range of Fahrenheit's thermometer during the year is frequently, on this northern part of our seaboard, from 110° to 120°; and even in the same day, in midsummer, the mercury has been known to descend rapidly over 40° in 24 hours! In this respect the climate of Europe has, on the contrary, a great superiority, as the thermometer there, as at Paris and London, seldom varies in any part of the year over 10 to 15 degrees in 24 hours, which I know from personal observations in those cities.

"Again, the experience of Dr. Mott, whose observations, both in this country, and in Europe, Asia, and Africa, have been directed to this subject, and have given him great advantages, is directly to the point, that it is precisely during those extreme and arid summer heats, which Prof. Gibson makes an unfavorable exception, and when the thermometer is ranging in the neighborhood of 100° Fahr., that surgical operations always do better than at any other time. It is, we believe, proverbially known to all our practitioners, that it is then that such operations are most generally succeeded, says Dr. M., by that most desirable of all results after operations, a rapid and healthy adhesive inflammation, without violent constitutional reactions and protracted wasting suppurations. And it is to this to which Dr. M. has reference in his preceding note to Prof. Velpeau, in speaking of the healthy and entonic character of the fever which succeeds to surgical operations, as compared to that which is seen in European hospitals.

But it must be understood, says Dr. M.. that the contrary unfavorable results in European hospitals, and the atonic febrile excitement of irritation, and the prostration and exhaustion of vital power, are produced, not by any circumstances connected with the climate of Europe, but by the character and class of persons who are the subjects of hospital treatment in those countries. They are, with but few exceptions, such as belong to the poorer classes, who have long endured every privation as to food and other comforts, and whose constitutions are for the most part worn out and impoverished, and, therefore, incapable of sustaining the shock of severe surgical operations. Whereas, in our own country, where every individual of our population, it may be said, whether poor or rich, and in all our public establishments, and charities, and hospitals, even in our prisons, lives in comparative luxuriousness, such privations as are seen among the peasantry and mechanics of other and older countries are utterly unknown.

"The favorable influence of our intense summer heats in promoting union by the first intention, was strikingly confirmed to Dr. Mott by what he observed also in Egypt, during his visit to that country. The somewhat similar climate of the valley of the Nile to our own during the summer, and its often long-continued and parching heats, have nevertheless, he observed, a most remarkable and salutary effect in accelerating the cure of all surgical operations by adhesive inflammation—a result favored, also, by the spare sinewy make and dry fibrous temperament of the Arab, resulting from the character of their climate, their food, and their active habits. The same beneficial results which an elevated and dry temperature produces upon the processes of adhesive inflammation, seem to be derived also, says Dr. M., from the tonic power of intense cold during our protracted winters.

"Thus, therefore, our climate, and its action on surgical processes, are, *toto cœlo*, at variance with the supposition of any advantages deducible from an erroneous conception of its *mild* temperature.

"2. In regard to the subject of *aneurisms*, Professor Gibson erroneously asserts that they are not common in the United States, and that at New York our population is almost exclusively foreign, and that aneurisms are almost exclusively confined to foreigners, and particularly to the English. The experience of Dr. Mott is directly at variance with that of Professor Gibson. In the first place, says Dr. Mott, not less than six-sevenths of the whole population of New York is of native-born citizens, and the whole amount of all our population so far exceeds that of Philadelphia, that a comparison cannot justly be made between those cities as to the class of diseases prevalent in either. In the next place, there is no greater frequency of aneurisms or other surgical cases at New York than are naturally derivable from the fact, that as the great emporium of commerce, our city presents a far greater proportion of hard-working laborious population, directly connected with commercial pursuits, than her excess of inhabitants over the population of any other city would seem to denote. Aneurisms, therefore, and especially every kind of casuality, or injury, or accident purely surgical, are natural casualties among a vast industrial people engaged in those arts and mechanical labors, whether on shipboard or on land, that pertain to a highly commercial and enterprising mart and emporium so considerable as our own. Few surgeons, perhaps, of the present day, or of the past century, have treated so many cases of aneurism as Dr. Mott, and his experience goes directly to establish the fact, that of all that number, and of all that he has seen in this city in a practice of near forty years, the great majority, if not all, were our *own countrymen.* He does not recall a solitary case of a foreigner, and nearly all belonged to that class who had been habituated, as might naturally be supposed, to severe mechanical labor. Nor could such cases, notwithstanding the fact that our city, out of 350,000 souls (including the cities and towns immediately adjacent to it), contains, besides some 15,000 negroes, a population of perhaps some 50,000 to 60,000 foreigners, be confined to natives of England, for at least 30,000 of our foreign population are Irish; and of the rest, the total of Scotch, Germans, French, Spanish, Italians, Swedes, &c., exceed by double the number those from England."

In connection with the foregoing citations, we have further to remark; first, that while Dr. Townsend gives due reference to his own writings on the climate of the United States, he has failed to refer to those of the lamented Dr. Forry, the very best authority he could have referred to on the subject. Secondly, in respect to aneurisms we can confirm what has been given above on the authority of Dr. Mott, excepting only that we have seen and treated many aneurisms among our residents of foreign birth; and adding further, after some careful observation of our own, that colored people are far more subject to these diseases than any other class of our population. For the last twelve or fifteen years there have been probably more operations for aneurism at the New York Hospital on negroes and mulattoes, than among all the other inmates of that institution; and that, too, notwithstanding the colored people constitute a scarcely appreciable portion of the inhabitants of this city, and certainly not over one-eighth or one-tenth of the inmates of the hospital. They are also far more frequently the subjects of operations for the removal of frosted limbs than any other class of patients.

Before leaving these prefatory essays we cannot omit to notice what strikes us as a remarkable oversight, to say the least of it, on the part of the translator; and one that runs through the whole body of the work. It was natural enough for M. Velpeau, who probably has little or no knowledge of any other modern language than his own, while speaking of English, American, or other foreign surgeons, to refer to such publications in his own language as chanced to contain notices of their respective operations or opinions, without regard to the foreign works in which these had been originally described. But in following him in this, the translator is not equally excusable. By neglecting to trace these references to their proper source, he has done discredit to the professional literature of his own language, and for all practical purposes has rendered these references useless to the surgeons of our own country, and more especially to the very class of readers for whom his translation has been prepared.

In the second edition of this great work, which we hope soon to hear of, we would seriously advise Dr. T. to revise and correct the whole of these references. For, should the book, as it now reads, ever become a standard amongst us, those who live some fifteen or twenty years hence, may not be surprised to find Drs. Barton, Pennock, Goddard, Gibson, N. Smith, Eve; or Messrs. B. Bell, Stafford, Key, Liston, Lawrence, Abernethy; not to speak of hosts of others of our own country, of England, or even among the older Latin writers of Italy and Germany; gravely cited as French authorities, with their names occasionally adumbrated in French spelling.

Coming now to the body of the work we find it, as probably most of our readers are aware, embracing; Title first, Operations in General; Title second, Minor Surgery, or more properly, Dressing and Bandaging; Title third, Elementary Operations; and Title fourth, General or Common Operations, that is to say, such as are applicable to different parts of the body, and not confined to any single organ or locality. These, in turn, are followed by a series of appendices, the materials of which have either been furnished for the present edition by the author himself, or collected and arranged, as they have come to hand, by the translator.

Title First, occupying 88 pages, treats, under five distinct heads. 1, Of Classification; 2. The Nature of operations; 3. The care required in operations; 4. The conditions necessary to operations; and 5. The consequences of operations. The primitive material of these chapters has, in the present edition, been considerably augmented by numerous comments, of greater or less importance, from the pen of the American annotators; and by an abstract of a recent memoir on Erysipelas by the author himself. Within these five chapters are embraced some of the most important questions that can at any time occupy the attention of the practical surgeon. And to one or two of these questions we shall return before closing the present notice.

Title Second, occupying 143 pages, is divided into eleven chapters. 1, Instruments used in ordinary surgical dressing; 2, Lint; 3, Linen; 4, Compresses; 5, Bands; 6, Adhesive Plasters; 7, Sundry articles required in Fractures; 8, Bandages; 9, Provisional dressings for Fractures; 10, Hernia Bandages; 11, Various local Medicaments. The subjects included under these several heads, are fully illustrated with handsome and appropriate wood cuts; and the text is augmented by numerous interpolations, in the form of comments or explanations, from the pen of the editors.

Title Third, occupying 92 pages, is divided into six chapters. 1, Blood-letting; 2, Cutaneous Irritations; 3, Cauterization; 4, Vaccination; 5, Perforation of the Ears; 6, Dental Surgery. These chapters are also illustrated with wood cuts, and augmented by numerous editorial remarks.

Title Fourth, occupying 347 pages, might have constituted a volume of itself. It is divided into *Part First*, simple or elementary operations; and *Part Second*, complex operations. The former are sub-divided into two chapters; of which, the one treats of cutting instruments, the mode of holding these, and the various forms of incision and puncture; the other treats of re-union by sutures.

The *Second Part of this fourth title* embraces a vast amount of matter, which is arranged under three distinct sections.

Section First is occupied with operations on the cuticular surface.

Section Second treats of operations which may be required for deformities, and is divided into five chapters. 1, Morbid cicatrices; 3, Subcutaneous Bridles; 3, Deformities from alterations of Tendons or Muscles; 4, Deformities from alterations in the Ligaments or Aponeuroses; 5, Deformities from alterations in the Skeleton. Appended to this section we have also in the present edition, an abridgment of the author's separate treatise on Strabismus, and the whole is further augmented by editorial remarks, and contributions to the history of sub-cutaneous surgery.

Section Third is entirely devoted to Anaplasty. It occupies no fewer than twenty chapters. It is remarkably full on most points connected with this new branch of operative surgery. But the details of the various chapters are too numerous and diversified, to warrant us in attempting any special account of them. Yet numerous and important as are these details in the original, they have been rendered still more so, in the present edition, by a vast amount of valuable matter, picked up, after a thorough examination of the whole ground, from Dan to Beersheba, and here transplanted, by the laborious hand of Dr. Townsend.

The Concluding American Appendix, occupying 176 pages, is mostly made up of the recent contributions to Anaplasty and Sub-cutaneous Surgery. It is more particularly devoted to such operations in these departments of the art, as have been performed, or have come to the editor's knowledge, while the rest of the work was in press. The several articles constituting this Appendix, are scarcely susceptible of analysis. They add materially to the value of the book; and in the preparation of a second edition, they can be readily arranged under the heads to which they severally belong. We regret to see, that from oversight, or want of skill, on the part of the wood-engraver, the figures introduced at page 713, and intended to illustrate a recent anaplastic operation on the forehead, have been entirely reversed, and in this way rendered almost useless. Another fault not very common with artists in such matters, is, that in the third figure, the forehead, particularly at the central depression, is rather worse looking than it appeared on the visage of the patient.

We had intended before bringing the present article to a close, to offer some remarks on a few of the points in surgical pathology, particularly on purulent infection, air in the veins, and erysipelas, which M. Velpeau has introduced among the early chapters of this treatise. Time and space, however, are urging us to desist; and we are the more inclined to do so, on reflecting that most of his peculiar views, so far as they are untenable, have already been sufficiently exposed. We may then, without detriment, pass over all he has to say on the subject of purulent infection. But we cannot silently accede to his opinions in reference to the entrance of air in the bloodvessels during operations about the neck,—opinions which our own experience has, in more instances than one, proved to be erroneous;—opinions too, which have, since first he broached them, been again and again refuted, and which we are surprised to find he is still unwilling to retract. On this subject, we cannot do better than refer our readers to the valuable essay by John E. Erichson, Esq., " On the proximate cause of death after the spontaneous introduction of air in the veins," which appeared in the Edinburgh Med. and Surg. Journal for January, 1844.

M. Velpeau published in the annals of surgery for February, 1842, a memoir on the nature and treatment of erysipelas; an abstract of which is introduced into the present volume. Judging from this abstract, we are induced to believe that M. V. has nothing to teach the surgeons of this country, or of Great Britain, in reference to erysipelas. Indeed, so far as respects his treatment, to use an expressive Hibernicism, he appears to be rapidly advancing backwards. We must first notice his general propositions in relation to the pathology of erysipelas, which are by no means so heterodox as his treatment. He observes:

> "1. That in a surgical point of view, the *predisposing cause* of erysipelas lies much more in inflammation produced by external atmospheric or meteorological influences, than in the condition of the health or general constitution of the patient.
>
> "2. That the *determining*, or *occasional cause*, may almost always be recognized in a wound, or in a crustaceous condition (*état crouteux*) of the part, or any irritation whatever, in some point upon the surface of the integuments.
>
> "3. That its *efficient cause* is in general a matter coming from without, or from degenerate (*dénaturés*) tissues, and mingling itself with the fluids of the diseased region, either secondarily or from the beginning.
>
> "4. That the fluids thus changed produce two orders of morbid phenomena, viz.: general and local; the first before the second when there takes place at first the introduction of the fluids into the general circulation; the second before the first if the change is effected only by direct absorption (*imbibition*).
>
> "5. That in the diseased inflamed skin, the fluids changed by the morbific element do not seem to circulate and advance but by *endosmosis;* so that, progress-

ing more and more, and extending superficially and not in depth, the erysipelas spreads upon, or into, the dermis, in the manner of oil on a flat surface.

"6. That a great proportion of the morbific matter remains, even to the termination of the disease, under the epidermis, or in the dermoid tissue, mingled with the blood in the inflamed organic region (*plaque*).

"7. That the totality of an erysipelas is almost constantly formed of a number of small successive erysipelatous inflammations.

"8. That an isolated erysipelatous patch (*plaque*) generally disappears of itself at the end of four to six or eight days.

"9. That the duration of the whole disease is thus extremely variable, in consequence of the number of erysipelatous patches which succeed, or are superadded to the others.

"10. That the remedies, whether internal or external, intended to remove such a disease, should have a special tendency to effect a modification of the blood."

Now, with such views of the constitutional origin of erysipelas, or at least of its intimate connection with a vitiated state of the fluids, what are we to think of M. Velpeau's ability and judgment as a medical surgeon, when he coolly informs us, after having treated one thousand cases of this disease, and taken exact minutes of four hundred, "that his experience to the present, extends only to *external* remedies ?"

It appears, however, that he has but recently discovered that erysipelas differs from common inflammation ; a brilliant discovery, certainly ; and one that must have greatly illuminated his subsequent track. Discoveries of this sort are not uncommon of late, in France ; and, had there never existed such good-for-nothing old fellows as Hippocrates, Galen, Sydenham, Pringle, and the like, the world would be under an unspeakable weight of obligation to these modern savans.

We must let M. V. himself speak both of his discovery, and his treatment of erysipelas.

"Since the time he has drawn the line of distinction between erysipelas and other inflammations, twenty-five of these cases have been treated by *compression*. In these the erysipelas continued from six and eight to twenty days. The redness diminished under the bandage, but the itching continued, and also the pain on the points that were compressed. The inflammation continued to spread. If, says M. Velpeau, I once thought otherwise, it was because, like the rest of the world, I confounded *erysipelas proper* with diffused phlegmon, angioleucitis, and phlebitis.

"He made trial in *thirty-three* cases of the temporary *blister*, on the centre, and to beyond or only on the margin of the diseased regions; but in no case was the disease shortened ; and it can afford relief only in the phlegmonous form, or in angioleucitis.

"The *nitrate of silver* (*azotate d'argent*), in its natural state and concentrated, and also in all its modes of application, gave no better results.

"Twice only he used the *hot iron*, after the mode of M. Larrey.

"In *two hundred* he used the *Neapolitan* ointment, and without effect. "*The mercurial ointment*," he says emphatically, "*neither cures nor arrests erysipelas*." It may shorten it, perhaps, a day or two, or render it a little less painful, the only reason for which I still sometimes use it, and for which it would still be in use, but for the repugnance patients have to it, the *danger of salivation*, and the soiling of the linen.

"We find that *hogs' lard* (*axonge*) in *twenty-three* cases moderated the erysipelas, but did not abridge its duration—and was of less efficacy than mercurial ointment.

"The disease in *twelve cases* was *aggravated* by an ointment of four grammes (*seventy-two grains*) of *white precipitate* to thirty of lard.

"*Sulphuric acid* in *ten cases*, applied as a lotion on the skin, had no sensible effect.

"The *hydrochloric* (*chlorhydrique*) *acid* in ten cases was not more satisfactory.

"The *citric and tartaric* acids, the *oxycrate* (vinegar and water) and *salt and water* (*eau salée*), or solution of *chloride* (*chlorure*) of *sodium* (*soda*), were each employed in six separate cases and without effect.

"In six cases, the *nitrate acid of mercury*, in three as a lotion and in three as a caustic, proved useless.

"*Camphor* and the *bird-peck punctures* (*mouchetures*) were equally unavailing.

"Professor Velpeau had in despair renounced all the above remedies, though practitioners still believe in the efficacy of the blister, nitrate of silver, mercurial ointment and lard, until his attention was drawn to the *changes effected upon the blood by the preparations of iron.*"

According to this, his own showing, he must certainly have been in what is called a bad box. And, had he not at length struck upon this lucky vein of iron, there is no telling but that "despair" might have brought his grey hairs with sorrow to the grave. The iron, be it remembered, which works, as we shall see, such wonderous effects upon the blood, is all the while applied only to the external surface.

"Impressed with the idea that the inflamed tissues in erysipelas are impregnated with blood and altered fluids, he asked himself the question, if *ferruginous* applications might not have some efficacy upon a disease so superficially situated. In forty cases he determined upon a formula of the *sulphate of iron* in solution of thirty grammes (*nine drachms*) to about forty oz. (*par litre*) of water, or as an ointment of eight grammes to thirty of lard—after having tested it in various other proportions.

"In *forty cases* the following were the results:

"First, In a man in the prime of life with an erysipelas in the front part of the leg, caused by an ulcer from operation for varices, cloths wet with the sulphate of iron effected a cure on the third day.

"Second, Same cure in a man of forty, for erysipelas in the face.

"Third, In a young man with erysipelas on the forehead, nose, eyelids, cheeks, and upper lip, supervening on the tenth day, from a very extensive pain in the head. On the day after the use of the solution of iron the redness faded, the surfaces became wrinkled, and on the third day the erysipelas had disappeared.

"Fourth, In an old man a vast erysipelas on the thigh and hip, above and below a sluggish abscess (*abcès froid*), the solution of iron was used on the first day, and the disease disappeared on the next.

"Fifth, In a patient aged thirty-two, with erysipelas on the right side of the face. On the second day the solution; on the third the part wrinkled; the solution is neglected; on the fourth day the nose, eyelids, and forehead are involved; on the fifth day the solution and the patches disappear, but the left cheek and ear are attacked; on the sixth the cure was effected, and the itching ceased.

"Sixth, seventh, and eighth cases, In three women the same symptoms and results.

"Ninth, tenth, and eleventh, The same result in an erysipelas in the neck of a man in whom M. Velpeau tied the carotid, and in a boy who had erysipelas on the arm and shoulder, and in a man who had it on the thigh."

"Twelfth, thirteenth, and fourteenth, An erysipelas of one, two, and three days on the lower half of the leg, with some outward appearances of angioleucitis, disappeared in twenty-four hours use of the solution, in three young men.

"Fifteenth and sixteenth, In a man—abscess in the thumb—angioleucitis in the fore-arm—solution of iron; on the second day fore-arm redder; third day, erysipelas on the arm and shoulder—a measles-like eruption on the chest—solution; on the next day there was no redness but on the points which had not been covered by the compresses.

"Seventeenth and eighteenth, An intense erythema, the consequence or effect of large burns in the hand in one case, and in the foot of another, in two women, treated by the solution, disappeared in twenty-four hours.

"Nineteenth, twentieth, twenty-first, and twenty-second, In these four cases the disease was also immediately cured, but as it had already existed for many days, the author could not say that the sulphate of iron had any great part in the cure.

"Twenty-third and twenty-fourth, In a woman recently operated upon for a tumor in the breast, and in a man affected with varix in the legs, erysipelas in great extent, after four days of previous restlessness, appeared on the thorax of the first case, and on the head in the second; in this latter the disease continued seven days, and even reappeared on the twelfth day after some premonitory symptoms, but spreading from one point, extended over almost the whole of the head, chest, neck, and arm.

"In these cases, as in the others, the new patches of erysipelas never lasted over one or two days. He adds that the ointment, which, though less efficacious, is more convenient than the solution for large surfaces on the trunk, was used in these two cases.

"Everything succeeded in the same way as in the sixteen other cases.

"Unless, therefore, says M. Velpeau, numerous and remarkable coincidences have on this occasion deceived me, as so often happens to others, there is good reason to believe in the efficacy of sulphate of iron as a topical application in erysipelas. In *no* case did the inflamed surface resist this means over twenty-four to forty-eight hours. It is only strange that the spreading (*ambulant*) erysipelas, extinguished at the point of its origin, continued, nevertheles, under this treatment to develop itself, even upon regions already covered and wet (*enduites et imbibées*) with the preparation of iron. Can it be that this remedy, like so many others, may be curative but not preventive? Is it necessary, in order that the inflammation should be modified, that it should be completely established?

"The researches I am continuing to make will, perhaps, enlighten us on this subject."

Our readers may now judge for themselves, of the treatment adopted by M. V. What may be their views of it, is not for us to determine. But to ourselves, we confess, it appears like a straining after effect, a restless desire to be doing or saying something new, for the sake of novelty, and for nothing else. We do not deny that the solution of sulphate of iron may be serviceable as a local application in the treatment of erysipelas. But before we can be induced to abandon laxatives, diaphoretics, and pure air,—constitutional agencies in which we have long been in the habit of placing more reliance than in all the local applications that have ever been devised,—or before we would even renounce the use of tepid anodyne lotions in the treatment of erysipelas, or free superficial scarifications with the point of the lancet, or the occasional use of deeper incisions when the disease is spending its force on the subcutaneous tissues,—local agencies which we rarely trust to alone, but in which we place much reliance as adjuvants to our constitutional measures;—or before we would entirely abandon tonics and stimulants internally, or the opportune use of a yeast poultice; we would at least ask M. V. to give these various agencies a fair trial, and let the profession know what he thinks of them. With ourselves, at least, they are all old friends, that have not as yet left us in the slough of "despair," from which M. V. has been so happily delivered by the sulphate of iron.

In closing our remarks, it is now due from us to state, that our hasty criticisms have been mostly confined to the introductory chapters, and that we have noticed perhaps only such parts as are most open to criticism. Let it be remembered, that we have not even touched upon operative surgery proper, the subject to which the work is mainly devoted, and one upon which M. Velpeau, as a writer and compiler, is without an equal.

We have at present space only further to add, that the mechanical execution of this volume is highly creditable to the publishers; and that the work, when completed, must prove a most valuable acquisition to our professional literature. J. W.

Art. IX.—*A Treatise on the Forces which produce the organization of Plants, with an Appendix containing several Memoirs on Capillary Attraction, Electricity, and the Chemical Action of Light.* By John William Draper, M.D., Professor of Chemistry in the University of New York. 4to. pp. 216. New York: Harper & Brothers; 1844.

We regret exceedingly that the late hour at which this valuable work was placed in our hands, will necessarily preclude any notice at all commensurate with its merits. Its claims to public favor are of the highest order, and if we are not greatly deceived, it will secure for its distinguished author an enviable position among the philosophers of the present age The observations and facts contained in this Treatise are the fruits of ten years' severe and unremitting labor; and the period selected by Prof. Draper for presenting them to public attention is, indeed, most auspicious. It is the very period, which, of all others, is the best suited to the exhibition of his original views on topics, in the discussion of which some of the master minds of Germany, France, and England, are now earnestly engaged. There is at this time a mighty conflict going on in the scientific world—it is a conflict between two great schools; the one hoary with ages, and counting among its disciples a long list of learned men—the other, young, with no claims to antiquity, but presenting attractions which cannot fail to add to its votaries, and command the respect, if indeed it does not reach the convictions of its opponents. We allude to the physiological school properly so called—and the school which has for its basis organic chemistry, and the application of physical laws to the phenomena of life.

Prof. Draper truly observes: "In a philosophical point of view, it was the office of the 17th century to unfold the doctrine of universal gravitation, to assign proper causes to the motions of the celestial bodies, and to develop the great doctrines of astronomy. It was the office of the 18th, to lay the foundations of physics and chemistry, or of that group of sciences which embraces the relations and reactions of atoms. It is the office of the 19th to discover the laws which obtain in the complicated structure of animated beings, those laws which give rise to the mysterious phenomena which we call life."

The leading object of the author in this Treatise is to show the connection between the imponderable agents and the production and phenomena of organized structures. He distinctly denies the existence of any *vital force* per se, and strikes at the very foundation of the physiological doctrines, which for a long period held the schools captive, and kept in check the application of those physical principles, which not only promise abundant accessions to our present unsatisfactory knowledge, but which even threaten to remove preconceived opinions, and annihilate what have heretofore been regarded as the established principles regulating the phenomena of organized beings.

"In this work the existence of the vital force of physiologists—as a homogeneous and separate force—is uniformly denied. The progress of science shows plainly that living structures, far from being the product of one such homogeneous power, are rather the resultants of the action of a multitude of natural forces. Gravity, cohesion, elasticity, the agency of the imponderables, and all other powers which operate both on masses and atoms, are called into action, and hence it is that the very evolution of a living form depends on the condition that all these various agents conspire. There is no mystery in animated beings which time will not at last reveal. It is astonishing that in our days, the ancient system, which excludes all connection with natural philosophy and chemistry, and depends on the fictitious aid of a visionary force, should continue to exist; a system which, at the outset, ought to have been broken down by the most common considerations, such as those connected with the mechanical principles involved in the bony skeleton, the optical principles in the construction of the eye, or the hydraulic action of the valves of the heart."

This language cannot be mistaken—it is strong, direct, unequivocal. Professor Draper here defines his position in the broadest manner; and he brings to its support facts susceptible of the clearest demonstration—facts, which, in our humble judgment, will be recognized as a basis of truths between which and the purely physiological doctrines no connection can be established—here we have the evidences of physical action through chemical agency exhibited in a way to remove all doubt. The reasoning adopted by our author, and the chain of experiments by which he arrives at the most important results, are all that the scholar could desire.

In chapter 2d, which treats of the mechanical cause of the flow of sap in plants, Professor Draper has elucidated a most striking physical principle, and given perfection to a process, which was not only obscure, but altogether incomplete and unsatisfactory. Dutrochet, whose attention was drawn to this subject some years since, succeeded in demonstrating the course of the sap from the spongiole to the leaf, but he could not explain the descent and route of the sap from the leaf to the root. He filled a bladder with alcohol, and tied the mouth of it so that none of the liquid could escape. He then placed it in a vessel of water, and found that the alcohol came out of the bladder into the water, and the water passed through the bladder into the alcohol; and inasmuch as the water flowed more rapidly than the alcohol, there was a constant accumulation within the bladder, distending it; an accumulation taking place with sufficient force to burst it open, provided the experiment was continued long enough. To these phenomena, M. Dutrochet gave the names of Endosmose and Exosmose, the former in allusion to the current flowing inward, the latter to that flowing outward. Physiologists, Professor Draper remarks, were pleased with these sonorous designations, which ever since have been used in the books. Some supposed that the force thus exerted by a bladder was due to the remains of vitality still existing in it, arising from its organization. It is, however, shown by our author that it is one of the ordinary cases of common capillary attraction, with which the vital force has no more connection than its kindred principle, Phlogiston.

"The rise or depression of a liquid in a capillary tube is determined by its quality of wetting or not wetting the surface of that tube; of two liquids in a given tube, that will rise highest which will wet the tube most perfectly. And, therefore, we can see in these movements, that if two liquids be placed on opposite sides of a porous system, or at the opposite ends of a capillary tube, which is wetted by one more perfectly than by the other, that one which exerts the most energetic action will flow fastest. If a piece of bladder be soaked in water and in alcohol, it will be readily seen that the former acts more powerfully on it, giving it greater flexibility and translucency, and having a stronger affinity for its tissues. For these reasons, if a mixture of water and alcohol be tied up in a bladder, as is well known, the water will soak out and evaporate away, but the alcohol will be retained. And for the very same reason, when these two liquids are placed on opposite sides of such a porous body, the water moves fastest through it, as in the experiment of Dutrochet. From these simple principles, we deduce the following important law, important because it gives us at once a clear explanation of the rise of sap in trees, and a beautiful exposition of the true cause of the circulation of blood: *When two different liquids are brought in contact in a porous solid, which is wetted by both, but by them unequally, that one which has the greatest affinity for the solid, or which wets it most perfectly, will pass most rapidly through it, and may even drive the other entirely before it.*"

"Let us finally remember that the explanation of the circulation of nutritious juices, both in the vegetable and the animal kingdom, rests upon this simple physical principle, *that if two liquids communicate with one another in a capillary tube, or in a porous or parenchymatous structure, and have for that tube or structure different chemical affinities, movement will ensue; that liquid which has the most energetic affinity will move with the greatest velocity, and may even drive the other fluid entirely before it; that this is due to common capillary attraction, which, in its turn, is due to electric excitement.*"

In accordance with this view, Prof. Draper proceeds to point out what must be the necessary action of the leaf on the flow of the sap. The ascending sap, which, for simplicity's sake, may be supposed to be water, rises to the upper face of the leaf. At this point it receives from the atmosphere carbonic acid gas, which is decomposed by the sunlight. The *yellow light*, as he has been the *first* to show, acting upon the carbonic acid, sets free its oxygen—carbon, of course, is left; simultaneously water is decomposed; the hydrogen of the water and the carbon unite and form chlorophyl, or the green coloring matter of the leaf. At the same time, another compound, *gum*, is formed, consisting of carbon and water; this gum constitutes the element of nutrition in the plant, and is pushed by the water from the leaf through the various tissues until it finally reaches the root or spongiole; from which point the water again ascends, and the same phenomena are observed. Thus, it has been shown by Prof. Draper, "*that the cause of the movement of the sap in flowering plants, both of the rise of the crude sap upward, and of the descent of the elaborated sap downward, is the light of the sun, which effects the decomposition of carbonic acid gas.*"

This may, indeed, be regarded as one of the most brilliant discoveries of modern times. It elucidates what was before lost in mystery; and when the application of this principle is made to the circulation of the blood, and it is shown that the blood circulates not through the influence of a vital principle (which is so vague as to mean nothing), but through physical causes by chemical agency, the value of this discovery will then be appreciated, and the gifted mind which conceived it will receive its full measure of praise.

Prof. Draper, in applying his theory of the flow of the sap to the explanation of the manner in which the circulation of the blood is accomplished, places himself in opposition to all past writers. He boldly asserts that the various theories on this subject are untenable. He does not recognize the contraction of the heart to be the power that moves the blood; nor does he admit that the force exerted by the heart is vital. The heart, according to the received opinions, is the impelling organ. Its offices are two-fold. In the first place, it projects the arterial blood from the left auricle into the left ventricle, and thence into the aorta through the ramifications of which it is carried to the various portions of the economy. It is then brought back and emptied through the ascending and descending cavas into the right auricle. This is the general or systemic circulation. From the right auricle it is thrown into the right ventricle, thence through the pulmonary artery into the lungs, where it gives off carbonic acid. It is there collected by the pulmonary veins, and is conducted to the left auricle. This is the pulmonary circulation.

Prof. Draper, in rejecting the explanation given by his predecessors, as to the principle which moves the blood, contends that the *motive power* consists in the strong affinity which is known to exist between oxygen and carbon. Thus the arterial blood leaves the left cavities of the heart, because its oxygen is attracted by the carbon in the tissues; and, again, the venous blood passes from the right cavities of the heart to the lungs, because of the affinity of its carbon for the oxygen in the air cells. *The oxygenizing action of the arterial blood, therefore, is the true cause of the systemic circulation; whilst the pulmonary circulation is due to the oxydation of the venous blood.*

Prof. Draper likewise exemplifies his theory in the portal circulation. We must confess that we are somewhat surprised that the fœtal circulation did not present itself to his mind; for, in our opinion, his theory will alone explain some of the phenomena connected with the action of the blood in the placenta. The writer of this article believes that the principal attachment between the maternal portion of the placenta and uterus, is through vessels passing from this organ to the placenta, and vice versâ. This doctrine, we are aware, is controverted, and it is positively asserted that no such mode of union exists. How such an opinion could prevail, in face of the most positive testimony to the contrary, it is difficult to conjecture. Albinus observed these utero-placental vessels in numerous instances: *In illâ parte uteri gravidæ, cui placenta adjuncta, exhibui arterios tortuosas, non ramosas; . . . inveni easdem, plenas autem sanguine; . . . in quas tamen premendo arterias majores sanguinem facile propellebam in placentam usque. Itaque dubium non erat quin ad placentam pertinerent, sanguinemque in eam deducerent.* (Academ. Annot., lib. 1, chap. 10, p. 34.)

This is the language of an exact and learned anatomist. Dubois, Chaussier, Biancini, and other equally high authorities, participate in this view of the subject. Hunter was not only aware of the existence of these utero-placental vessels, but he deduced from their presence facts, which had never occurred to other physiologists;—he explained the circulation of the maternal blood in the placenta, and thus threw new light upon the physiology of the fœtus. Harvey won for himself an undying name, by his discovery of the circulation;—second only to this is the discovery by Hunter, of the mode of circulation of the mother's blood in the placenta. We believe, therefore, that there are two distinct circulations in the placenta; the one on the maternal portion, between the uterine arteries and veins,—the other on the fœtal portion, between the ramifications of the umbilical arteries and vein. These circulations are entirely separate and distinct, having no direct communication with each other. How then is the blood, which is brought by the umbilical arteries from the system of the fœtus, and deposited in the fœtal portion of the placenta, elaborated? How is it deprived of its carbon, and made fit to be taken up by the ramifications of the umbilical vein, again to be carried into the system of the fœtus? This has been the vexed question among physiologists; it has constituted the great difficulty of the circulation in the placenta; and hence various and unsatisfactory theories have been advanced on the subject. All writers have admitted the necessity of action on the blood contained in the umbilical arteries, but the mode of that action has given rise to numerous and conflicting views. Now, on looking for a moment at the condition of things as it actually exists in the placenta, what do we find? On the fœtal surface of this organ, we observe a circulation going on between the branches of the umbilical arteries and vein;—the blood, which is proper for the nourishment of the fœtus passing into its system through the umbilical vein, and after it has lost its nutritious properties, brought back to the placenta by the umbilical arteries. These arteries are continuous with the branches of the umbilical vein, and have no direct communication with any other vessels. So far, we can perceive no elaborating power,—no influence by which the blood in the umbilical arteries may be deprived of its carbon. Let us now turn to the maternal surface of the placenta. Here we have a distinct and separate circulation;—arteries passing from the uterus into the placental sinuses, depositing arterial blood, and veins proceeding from these same sinuses to the uterus. With even the knowledge of these facts, admitted by many of the best Physiologists, it was difficult to understand in a satisfactory manner, how the blood became changed in the fœtal portion of the placenta. The beautiful theory advanced by Professor Draper, appears at once to remove all embarrassment. The oxygen in the arterial blood, on the maternal portion of the placenta, not in its gaseous form, but united with albumen, attracted by the carbon in the umbilical arteries, permeates the walls of these vessels, and thus decarbonises their blood. This blood is now taken up by the ramifications of the umbilical vein, and carried to the system of the fœtus. By what power? Certainly not by the impelling engine,—the heart, but, as we believe, by the force resulting from the strong chemical affinity, which the oxygen of the blood has for the carbon in the tissues of the fœtus.

Again, we regret that time will not permit us to give a more extended review of this extraordinary book. Indeed, it may be called a book of gems; and we are confident that it will be sought for with great eagerness by the profession, both of this country and Europe. We anticipate forit a favorable reception, and feel that it cannot but reflect credit on the medical literature of America. If, as we think, Professor Draper has discovered the true *motive force*, by which the circulation of the blood is accomplished, may we not anticipate, that, in all future time, his name will be honorably associated with that of Harvey and Hunter, as having supplied the only link necessary for the completion of that chain of physiological action, which may be considered the most remarkable in the animal economy?

The publishers deserve great credit for the manner in which they have performed their part. The typography, paper, and general appearance of the work, is equal, if not superior, to any medical publication, which has ever issued from the American press.

G. S. B.

ART. X.—*An Essay on the Philosophy of Medical Science.* By ELISHA BARTLETT, M.D. Professor of the Theory and Practice of Medicine in the University of Maryland: pp. 312. Philadelphia: Lea & Blanchard; 1844.

THE above work, which was announced as having been received in the last number of this Journal, embraces an exposition of what the writer conceives to be the true principles of Medical Philosophy; but in order to accomplish this object successfully he has thought it necessary to state what he considers the true fundamental doctrines of the philosophy of all *physical* science. This takes up the first part of the work, consisting of 55 pages, and embraces the following propositions:

"*Proposition First.* All physical science consists in ascertained facts, or phenomena, or events; with their relations to other facts, or phenomena, or events; the whole classified, and arranged.

"*Proposition Second.* These facts, phenomena, and events, with their relations, can be ascertained only in one way; and that is by observation, or experience. They cannot be deduced or inferred, from any other facts, phenomena, events, or relationships, by any process of reasoning, independent of observation or experience.

"*Proposition Third.* A law, or principle, of physical science consists in a rigorous and absolute generalization of these facts, phenomena, events, and relationships; and in nothing else. It is identical with the universality of a phenomenon, or the invariableness of a relationship.

"*Proposition Fourth.* A hypothesis is an attempted explanation, or interpretation, of these ascertained phenomena and relationships; and it is nothing else. It consists in an assumption, or a supposition, of certain other unascertained and unknown phenomena or relationships. It does not constitute an essential element of science. All science is absolutely independent of hypothesis.

"*Proposition Fifth.* Theory is one of two things, according to the manner in which the word has been used. It is either a generalization of phenomena and relationship, and, in this case, identical with a law, or principle, of science; or, it is an attempted explanation of phenomena and relationships, through the intervention of other assumed and unascertained phenomena and relationships, and, in this case, identical with hypothesis.

"*Proposition Sixth.* All classification, or arrangement, depends upon, and consists in, the identity, or similarity, amongst themselves, of certain groups of phenomena, or relationships; and their dissimilarity to other groups of phenomena, or relationships. All classifications or arrangements are natural and perfect just in proportion to the number, the importance, and the degree of these similarities, and dissimilarities."

Dr. Bartlett boldly maintains that all science consists *in the facts and their relationships, classified and arranged, and in nothing else ;* that *reasoning* has nothing whatever to do in the matter, except in the art of arranging and classifying the phenomena and their relationships, according to their differences, their resemblances, or their identity ;—he even goes so far as to wish that the term *inductive reasoning* might be suffered to disappear from the language of science and philosophy, and that there might be substituted in its place, the phrase, "*the classification and arrangement of phenomena and their relationships.*"

Now with all due deference to the views of the able author of this work, we must be allowed to say that we hold his fundamental propositions to be mere assumptions, and if acted upon would deprive us of all general laws and principles, on which natural, moral, medical, and all other science rests. When applied to medicine, as we shall show hereafter, they would strip it of all pretensions to the character of a science, and the nurse who has, for a long term of years, been a close observer of the phenomena of disease, should rank higher in the walks of medicine, than the man who has made himself thoroughly master of the facts and principles of the science, but who has not had as much experience in the practical observation of symptoms at the bed-side.

"The whole science of gravitation," says the Dr., "consists in its phenomena, classified and arranged, and in nothing else—and these phenomena are *the science*, in themselves, *wholly and absolutely*." Now, it really seems to us surprising that this very illustration did not hint to the author the utter fallacy of his proposition. What *relation* could observation simply establish between the fact of an apple falling from a tree and the motions of the heavenly bodies? None whatever. None ever was observed from the creation of the world until Newton, by a pure process of *mathematical* reasoning, established those grand principles, which so magnificently display the order and harmony of the Universe—The simple fall of an apple first suggested to him that great *principle* of physical science, that matter attracts matter in the reciprocal ratio of their masses. If *reasoning* had had nothing to do in the matter, man might have gone on seeing apples fall to the "crack of doom," without growing any wiser in relation to the laws which govern the motions of the heavenly bodies ; and so in all the other physical sciences. We make, it is true, an extensive collection of facts, and then we carefully review them in order to discover some general fact common to the whole. We call this, as Abercrombie remarks, *generalizing*, *or the induction of a general principle.* All the other steps in science are, in fact, but preliminary and subservient to this. This writer very justly remarks that "an ordinary mind is satisfied with the observation of facts as they pass before it, and those obvious relations which obtrude themselves upon its notice : but the philosopher analyzes the phenomena ; others discover their more minute relations. His genius is distinguished above the industry of the mere observer of facts when he thus traces principles of accordance among facts which, to the vulgar eye, appear remote and dissimilar." We see not then, how the term "inductive reasoning" could be spared from any department of science, for the term "classification and arrangement of phenomena and their relationships," expresses but a part only of the objects of the philosopher, or the physician ; they seek for some law, some principle, which binds and connects these phenomena together, some general *fact*,—as that of *gravitation*,—under which all these diversified phenomena may be arranged. Again, to illustrate the fallacy of our author's position, take some of the facts, under gravitation—a feather does not fall to the earth in the open air, as rapidly as a piece of lead, but under the exhausted receiver of an air-pump it does; now what is the cause of this? Dr. B. steps in and tells us, I don't admit any reasoning in this matter; it is enough for you to know the *fact*, you see it is so—"there is nothing more to be done," "this is the science." But we ask the privilege of reasoning the matter a little, of asking whether the difference in the two cases may not be owing to the fact, that in the one case the presence of the atmosphere retards the velocity of its fall, while in the other it meets with no resistance? If we seek to extend our generalization, and reason from analogy, we go on and ask, will not the same thing happen in the case of all other bodies, no matter what their specific gravity may be, provided the body be placed in a vacuum—a very *few* experiments convince us that such is the fact; we here arrive at a *general principle*, and that too by a process of inductive reasoning, founded on a limited number of experiments, so that we find that this process is really a vast labor-saving machine, which saves us the trouble of going on experimenting, *ad infinitum*, in order to ascertain *all* the phenomena. How was it that Newton inferred the combustibility of a diamond, as well as its chemical composition? Was it not from its great refractive power, which allied it to this class of bodies? How did it happen that iodine was employed for the cure of goitre? Was it not because it was known to constitute one of the ingredients in sponge, which had been found efficacious in the cure of this disease. Inductive reasoning had something to do in both these cases, as well as in an infinite number of others, that might be mentioned; and yet we are told that we have no need of such a phrase, and that it ought to disappear from the language of science and philosophy.

We hold therefore with Abercrombie, that both in physics and medicine, we have, as philosophers and medical men, something to do, besides the observation and arrangement of phenomena. We have, 1*st*, *to collect authentic facts*; 2*d*, *to trace causation*; 3*d*, *to deduce general principles*. If we had merely to collect and arrange facts, we see not why the physician should be educated; if he has only to employ his external senses, the untutored Indian would make the greatest philosopher after all. He can see farther; hear quicker; smell keener; taste better, and feel, perhaps, more acutely, than the best of us; and according to Dr. B.'s standard, he ought to make a better physician than the educated white man. But slight reflection shows that something more is necessary; we need not only the possession of our bodily senses in their integrity, but attention, memory, conception, and abstraction; we need minds trained to habits of reasoning, of reflection and of judging, of instituting comparisons, of drawing inferences, of deducing principles. It does not follow, because we admit that all science is founded on observation, that therefore it all consists in observation; observation makes us acquainted with facts; reasoning enables us to apply those facts to some useful end. *Steam* has wonderful properties, but *observation* never led Fulton to build a steam-boat. *Hydrogen gas* is a very light substance, but observation never led to its first employ in ærostatics. *Powder* is a powerful agent, but observation never led to its use in war, or the arts. In fact the whole science of astronomy has been built up by reasoning, founded on observation, and many of the most useful discoveries in the arts have had their origin in the same source. But the author, however, appears to us to concede the very point in dispute; for, when speaking of the fact that Fresnel proved *à priori* by a profound mathematical inquiry, the existence of polarized light, he remarks, that "F. showed by the agency of his mathematical calculations, that certain relationships of light, assumed, or ascertained by observation, in certain conditions, must, if these relationships were true and genuine, exist, also, in all other identical conditions. He showed, that if certain modifications of light, wrought in its properties by the action of Iceland spar, during its passage through this substance, were dependent upon certain peculiarities in its crystalline structure, then the same modification must be produced in other substances, identical in these peculiarities of structure with the Iceland spar. He applied, merely, and generalized, by means of his calculations, a phenomenon or relationship of light, already ascertained by direct observation."

And what is this but analogical, or inductive reasoning? the very process which Dr. B. in all cases condemns, and the very language to express which, he would, if possible, banish from our vocabulary. Fresnel, it is acknowledged, "generalized, by means of his calculations" —and yet we are told in the beginning of this chapter that "all physical science is the result of observation," and that observation is the only possible mode of ascertaining phenomena and their relationships—and yet Fresnel found out the existence of certain properties of polarized light by *generalizing!* We venture to affirm that many things are found out in medicine in the same way.

The second part of our author's work consists of an application of the foregoing principles to the philosophy of medicine. The whole subject is discussed in a very able manner, under the following propositions:—

> "*Proposition First.* All medical science consists in ascertained facts, or phenomena, or events; with their relations to other facts, or phenomena, or events; the whole classified and arranged.
>
> "*Proposition Second.* Each separate class of facts, phenomena, and events, with their relationships, constituting, as far as they go, medical science, can be ascertained in only one way; and that is by observation, or experience. They cannot be deduced, or inferred, from any other class of facts, phenomena, events, or relationships, by any process of induction or reasoning, independent of observation.
>
> ☞ "*Proposition Third.* An absolute law, or principle, of medical science consists in an absolute and rigorous generalization of some of the facts, phenomena, events, or relationships, by the sum of which the science is constituted. The actual, ascertainable laws, or principles, of medical science are, for the most part, not absolute but approximative.
>
> "*Proposition Fourth.* Medical doctrines, as they are called, are, in most instances, hypothetical explanations, or interpretations, merely, of the ascertained phenomena, and their relationships, of medical science. These explanations consist of certain other assumed and unascertained phenomena and relationships. They do not constitute a legitimate element of medical science. All medical science is absolutely independent of these explanations.
>
> "*Proposition Fifth.* Diseases, like all other objects of natural history, are susceptible of classification and arrangement. This classification and arrangement will be natural and perfect just in proportion to the number, the importance, and the degree of the similarities and the dissimilarities between the diseases themselves."

We trust the learned writer will excuse us for saying, that we hold the second part of his work to be equally unsound with the first and far more mischievous in its tendency. To give a fair *exposé* of the views of the author, we shall quote from the second chapter.

> "If it is true, even in physical science, as I have endeavored to show, that the doctrine stated in my first proposition, is only partially and imperfectly recognized, it is so to a much greater extent in regard to the same doctrine in its application to medical science; and the remarks already made upon this doctrine may be repeated with still less qualification, and with more emphatic significance, in connection with my present subject. The fundamental and primary truth, that all medical science consists in the appreciable phenomena of life, with their relationships, classified and arranged, and in nothing else, has never been generally admitted and received. This science, to a vastly greater extent than any other, has always suffered, and still continues to suffer, from the general prevalence of a spurious philosophy, and from vicious or imperfect methods of investigation; and one element in this false philosophy, leading to these mistaken methods, is to be found in the inadequate conception or half-belief of the doctrine above stated. Here, as in physical science, with very few exceptions, men, claiming to be disciples of the Baconian philosophy, eloquent in their praises of what they call *inductive reasoning*, and full of earnest declamation against the dangers and prevalence of false or premature generalizations, and of hypothetical speculation, have failed to see more than half the truth, and have, oftener than otherwise, fallen headlong into the errors which they were so ready to condemn. The feeling has been much more common in medical, than in physical science, that although facts and their relations might, indeed, and must constitute the *foundation* of the science, the science still consisted in something more than these facts and relations;—that *upon* these latter the science itself was to be somehow built up, by that magical and creative process of the mind,—that evil genius of medical science,—called, indeed, *induction*, but differing, when stripped of its disguises, in no single function or attribute, from that speculation, the place of which it professed, with promises as loud and pompous as they have proved to be barren and empty, to occupy. The feeling has been, and still is,—as much, almost, since the time of Bacon as before,—that the science is in the *inductive or reasoning process, superadded to the facts and their relations*, more than in these latter themselves. Here, at the commencement of this part of my essay, I wish to enter my protest against this doctrine, in all its forms and modifications. I wish to show, that the science of medicine consists *in the phenomena of life, with their relationships, classified and arranged*,—WHOLLY, ENTIRELY, ABSOLUTELY. I wish to show, that these elements constitute,—not the foundation upon which, nor the materials, merely, with which the science is to be subsequently constructed, by some recondite and logical process of the reason,—but that they *are* the science, and the whole science, already constructed, and so far completed; and that nothing can be superadded to them, by any act of the mind, which can in any way increase their value, or change their character."

Now, we remark here, just what we remarked in the former case, that the author presents only a *part* of the objects of medical, as he also did of physical, science, which seeks not only to collect all authenticated facts, and to arrange, classify, and combine them in a proper manner; but also to trace among them the relation of *cause* and *effect*, and to deduce from them general facts, or principles. We believe fully, that it is the *author* that "sees only half the truth;" and we do not think that Bacon, Sir John Herschel, Abercrombie, and all the illustrious writers in medicine, from Bacon down to the present moment, have been laboring under a mistake in this matter. We acknowledge that there are many false facts in medicine; much false induction—much false reasoning; but this does not prove that no facts are to be depended on; no induction sound; no reasoning good for anything. The truth is, that the practice of medicine, to be successful, must be founded chiefly, if not altogether, on analogical reasoning. We are called to a patient with bronchitis; we recollect treating a case very similar, successfully, by swabbing the larynx with a solution of nitrate of silver, forty grains to the ounce; we treat this case in the same way; the man gets well. Here is a course of practice founded purely on analogical reasoning; based, however, on observed facts; and so in every other conceivable case, almost. Every practitioner of medicine is aware that one great source of uncertainty in the practice of medicine is, the difficulty of applying to new cases the knowledge we have acquired from observation. We are supposed by the common people, after having been for some time in practice, to proceed upon *experience;* but this is very rarely the case. We cannot be said to proceed upon experience, as Abercrombie has well observed, unless the circumstances in the new case are the same as in those cases from which our knowledge was derived. But how often do we meet with two cases that are exactly similar? If not, we then have to proceed upon *analogy;* we *reason* from *induction;* we deduce a *principle* of treatment from all that we have hitherto observed in analogous cases, and we apply it to the treatment of the case in hand. Here is a "reasoning process, superadded to the facts and their relations, against which Dr. B. so solemnly protests!

We are willing to concede that "our knowledge of anatomy is not dependent upon our knowledge of other branches of medical science;" and that, to some extent, "our knowledge of physiology is not deducible from our knowledge of anatomy;" but we are not so willing to grant that "our knowledge of pathology is not deducible from our knowledge of physiology." If pathology includes morbid changes, as we presume it does, then we are at a loss to see how diseased appearances can be detected without an acquaintance with healthy structure. It is true, that a knowledge of healthy function does not imply a knowledge of morbid processes; but this is only one of the departments of pathology. A knowledge of morbid anatomy is founded on an acquaintance with healthy anatomy. To a certain extent, the proposition will hold true; but when carried as far as Dr. B. seems disposed to do, so far from its being true, the very reverse is the fact.* As a good illustration of our author's reasoning on this subject, we present the following quotation:

> "If the doctrine which has been announced is sound and true, and to the extent which is thus asserted, then the entire domain of pathology, vast and various as it is, ought to furnish instances and exemplifications of its soundness and its truth. And such, I think, is the case. There is hardly a morbid process, in any organ or tissue of the body, that would not serve my purpose, as an instance and an exemplification of the truth which I wish to exhibit. It will be sufficient, how-

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* According to our author, as physiology cannot be deduced from anatomy, nor etiology nor pathology from physiology, nor therapeutics from pathology, but is entirely based on experience, it follows that these branches might very properly be dispensed with in the curriculum of medical education, and the student should not only begin, but prosecute his studies exclusively by watching disease at the bed-side. To this conclusion, the reasoning of our author evidently leads. Louis, however, calls anatomy "the strongest support of pathology" (*on "Pthisis," p.* 70). We hold that all the branches of medicine are closely connected; that they all reflect light on each other; and that none of them can be neglected without injury.

ever, to cite a few only of these, for this purpose. Let us look first at that pathological process, or series of processes, which is designated by the term *inflammation.* There is no morbid process, or condition, more common than this; there is none more important; there is none which has been more carefully and thoroughly studied; there is none which is better understood. The appreciable elements of which it is composed; its forms and modifications in different organs and tissues; its causes; its tendencies; its terminations; its results, have been very accurately and closely investigated. Now, I ask, if any attainable knowledge of the healthy action of the parts, in which this process is seated, could, of itself, have led us to a knowledge of that diseased action of the same parts, constituting inflammation? Is there anything, susceptible of being ascertained, in the natural functions of these parts, in the properties, the susceptibilities, the actions of the minute arteries, the minute veins, of the capillary vessels, of the nervous filaments involved in this morbid process, which could have presupposed their liability to this process? Could any knowledge of the former have led, by any course or method of reasoning, independent of observation, to a knowledge, or a prediction of the latter? Could a knowledge of one have been *deduced* from a knowledge of the other? Most clearly and indisputably not. There is nothing, whatever, in the physiological condition and relations of the parts concerned in inflammation, which could have shadowed forth, or indicated, in the dimmest possible degree, their liability to this condition. By what conceivable process of reasoning—by what imaginable steps of logical deduction—could a knowledge of the former have led us to a knowledge of the latter? Do the natural, the unfelt, the unnoticed actions of these minute vessels and nervous filaments presuppose, in any way, their liability to those numerous and complex processes—the contractions and the distensions of the vessels—the increased, the diminished, the irregular velocity of the blood—the pain, the heat, the secretions—which enter as elements into this morbid condition? Certainly not. What physiological properties of these minute vessels could have informed us of their power, under any circumstances, to separate the fibrine from the other proximate constituents of the blood, or to secrete pus? Certainly none. So far, then, as the phenomena themselves of inflammation are concerned, I do not see how it is possible, that they should be inferred or deduced from the physiological phenomena of the parts with which they are concerned, or in which they are seated; and I think, that an examination of all the other circumstances connected with this morbid condition will serve to elucidate and to strengthen this result. Let us take one of these circumstances,—that of the different degree of liability, in the different organs and tissues of the body, to be affected by this morbid process. This difference is very great. Certain parts and organs are very liable to inflammation; other parts and organs are very little liable to inflammation. Now, is there anything in the physiology of these several parts and organs,—in their natural and healthy offices and functions,—from which, by any *à priori* reasoning, these different degrees of liability could have been ascertained? Why are the lungs so frequently, and why is the spleen so rarely, the seat of this pathological process? Why is acute inflammation of the pia mater and the pleura so common, and acute inflammation of the peritoneum, so uncommon an affection? It will not do to say, that these different degrees of liability to this disease can be accounted for by any obvious or appreciable differences in the structure and functions of the organs or tissues in which it is seated. These differences between the peritoneum and the pleura, for instance, are not sufficiently striking to account for the result. Neither will it do to say, as has often been said, that the degree of this liability is in proportion to the importance and functional activity of the different organs and tissues. I do not know that this importance and activity are any greater in the case of the pleura, than in that of the peritoneum;—I do not know that they are any greater in the case of the lungs, than in that of the kidneys. Let us test the value of this pretended explanation, by a reference to the mucous membrane of the stomach. It would be difficult, I think, to find any part of the body, in which, from a mere *à priori* reasoning, we should be justified in looking for acute inflammation more frequently than in this. In what part is there greater activity of function? In what part are more important processes carried on? In what part is there a quicker or more delicate susceptibility to impressions? What part is more intimately connected with the other important acts and organs of the body? Is it not the great centre of the organic sympathies? What part is more constantly exposed to the action of irritating substances? And yet, notwithstanding all these apparent and *à priori* causes of acute inflammation, very few tissues, or organs, of the system are so rarely affected by this morbid process as the mucous membrane of the stomach. Certainly, nothing can show more clearly the utter futility of the attempt to explain the fact of which I am speaking, by referring it to differences in the importance and activity of the functions of the different organs, than this striking exemption of the gastric mucous tissue from attacks of acute inflammation."

This is very strongly put and well expressed, but it by no means proves the truth of his proposition.

But the portion of the work which will meet with the severest criticism, is that devoted to the consideration of the relations of pathology to therapeutics. The ultraism of Dr. B. is more conspicuously displayed here than in any other part of the work. In fact, we fear that few will be found to agree with his views on this subject, except the Thompsonian and other empirics of the day. The reader may judge what these views are. We quote from pages 103, 104, 105.

"The next relationship, the nature and character of which I have to investigate, is that which exists between morbid processes and conditions, or diseases, on the one hand, and those substances, agents, and influences, on the other, which are endowed with the property of arresting, or controlling, or modifying these processes or conditions. These substances, agents and influences, constitute what has been called the *materia medica*. The science of *therapeutics* consists in their relationships to disease; and their application to their appropriate purposes and uses constitutes the *art* of therapeutics. *Practical medicine* comprehends, and consists of, the phenomena of pathology, and the relations of these phenomena, amongst themselves, to their causes, and to these, their modifiers.

"Writers upon the science and the art of medicine, have always been, so far as the subject now before us is concerned, divided into two classes, or schools; those of the *rationalists*, and of the *empirics*. The former have always been, and still continue to be, the most numerous and powerful. Their doctrines have pervaded and governed the medical world. They claim to be more *philosophical* than their opponents, the empirics. They profess to be governed and guided, in their theory and practice, by what they are pleased to call *rational principles*. They allege that their therapeutics is founded upon rational *indications*. They claim not merely to cure diseases, but to cure them *philosophically*, and in conformity to their *rational principles*. They claim not merely to have ascertained the relationship which exists between diseases and their remedies, but to understand the *nature* and the *reasons* of this relationship. They pretend to explain the *mode* and *manner* in which these remedies produce their results. Their doctrine is, that therapeutics is *founded upon* pathology; that the former is deduced from the latter. They are very confident in their knowledge of the intimate *modus operandi* of their remedies. The empirics, on the other hand, deny all this. They say, that the whole science and art of therapeutics are founded upon simple experience. They say, that our knowledge of the relationship between diseases and their modifiers, is the sole and exclusive result of observation of this relationship itself. They disclaim any knowledge of the intimate and essential nature of this relationship. They deny, that any acquaintance, however complete and accurate, with the phenomena of pathology, could ever of itself have led to a knowledge of the relations which exist between these phenomena, and those substances and influences in nature, endowed with the property of arresting or controlling these phenomena. They deny that therapeutics is founded upon pathology. They deny, that by any process of reasoning, the former can be deduced from the latter. This doctrine, I hardly need say, is the doctrine of this essay; and the remaining portion of the present chapter will be devoted to its statement and illustration."

Again, p. 113, 114.

> " *Therapeutics is not founded upon pathology. The former cannot be deduced from the latter. It rests wholly upon experience. It is, absolutely and exclusively, an empirical art.* There is but one philosophical, or intelligible, *indication;* and that is to remove disease, to mitigate its severity, or to abridge its duration; and this indication never grows out of any *à priori* reasoning, but reposes solely upon the basis of experience."

There is, undoubtedly, much of truth, mixed up with a great deal of error, in what Dr. B. offers on this subject. Our knowledge of the properties of remedial agents, depends in a great degree upon observation of their effects in disease; but therapeutics is not wholly an empirical science; it does not entirely rest upon observation. The use of acids, or of alkalies, in certain states of the urine, was first suggested by reasoning from chemical facts, observed out of the body. The use of animal food, in diabetes, was also suggested by a knowledge of the chemical composition of vegetable aliment; of alkalies in the treatment of the fevers of tropical climates, from observing the appearance and composition of the blood in those laboring under the disease. We believe that the most successful treatment of inflammation is founded on its pathology; and then look at the *causes* of disease. Reasoning, apart from all experience whatever, would lead us to infer that a removal of the cause would lead to the cure of the disease. This is admitted to form an exception to the general proposition; but then it is explained upon the principle that " it consists merely in an application of the law of the invariableness of relationships." We care not how it is explained; but we call this " a philosophical" mode of curing disease, and one in conformity " to rational principles." Remove a man beyond the sphere of the operation of those agents which caused disease, and you place him in the way of cure. This is a lesson taught by reason, no less than by experience; we shall go, therefore, far enough, if we admit that medicine is to a very great extent an empirical art: it is by no means necessary to assert, nor will facts warrant us in the belief, that it is altogether so. If a man had his skull depressed by a blow, " *à priori* reasoning" we should suppose would lead the surgeon to endeavor to elevate the depressed portion, whether he had ever been taught by experience as to the effect of such elevation in any previous case or not; and so of other instances. We agree with Dr. B., as a general rule, that the therapeutical action of the substances and agents of the materia medica is not to be inferred from their effects upon the body in a state of health; but there are many exceptions even to this law. The physiological effects of remedies are often of very great use in determining their application to the cure of disease, as in all the chemical remedies, the class of revulsives, and of narcotic, emetic, and cathartic substances, to say nothing of the warm, cold, vapor, and shower bath. " Rational induction" teaches us in aneurism to tie the artery; in hernia to reduce the intestine; in a deep-seated abscess, to let out the pus; in a fractured limb, to place the broken ends in apposition; in sprained joints, to allow them rest, &c. But it is unnecessary to add more upon this point.

We pass on to chapter ninth, and here we find it equally difficult to coincide in the conclusions of our author. We quote a few remarks:

> "The considerations, contained in the preceding chapter, lead directly and obviously to a distinct and clear conception of the nature, the importance, and the relations of diagnosis. Diagnosis is an art, depending upon a *knowledge of pathology.* Just in proportion as this knowledge is positive, accurate, and complete, is our diagnosis positive, accurate, and complete. The two are correlative conditions. The philosophical reason of the practical importance of diagnosis, is simply and manifestly this:—it is the expression of one of the terms in every problem of cure;—it constitutes what may be called one of the elements in every therapeutical operation, or analysis. It is the only term, the value of which it is difficult to ascertain; it is the great element, upon a full knowledge of which, the certainty of every therapeutical operation depends. Therapeutics consists in the relationships which exist between pathological actions and conditions, on the one hand, and the articles and agents of the materia medica, on the other. These relationships, like all others, are fixed and invariable. The properties of the articles and agents of the materia medica are easily ascertained. It is not from any difficulty in ascertaining these properties, that the uncertainties of therapeutics arise. These uncertainties grow out of, and rest in, the imperfection of our diagnosis; the incompleteness of our knowledge of pathology. Just in proportion to the perfection and absoluteness of our diagnosis; just in proportion to the completeness of our pathological knowledge, will be the certainty of our therapeutics. All practical medicine depends upon a knowledge of three things, to wit: pathology; the articles or agents of the materia medica; and the relations between these two elements: and nearly all the difficulties, the obscurities, the uncertainties, the imperfections of practical medicine, grow out of the difficulties, the obscurities, the uncertainties, the imperfections of our pathological knowledge, or, in other words, of our diagnosis."

Now, we think Dr. B. is entirely mistaken, in imputing the uncertainties of medicine to the "imperfection of our diagnosis, and the incompleteness of our knowledge of pathology." If there is no necessary connection between pathology and therapeutics, as he attempted to show in the previous chapter, why then it is very clear that pathology has not much to do with the treatment. Our diagnosis may be ever so correct, yet, if our methodus medendi be not judiciously adapted to the circumstances of the case, we may look in vain for an amelioration of the disease.

We do not agree with Dr. B. that "the properties of the articles and agents of the materia medica are easily ascertained." If this were so, there would certainly be less difference of opinion, as to the properties of the principal articles of the materia medica. And yet, scarcely two physicians will agree as to the precise virtues of a single medicinal agent. The fact is, that the uncertainties of medicine, as a Practical Art, arise from various causes. The certainty of results in physical science, depends upon the perfect uniformity of all the phenomena of nature;—the want of such uniformity in medicine, is the grand cause of all its uncertainties. We meet with this want of uniformity continually, not only in the symptoms and progress of disease, but also in the effects of medicinal agents upon the system. The different effects of the same disease in different constitutions, often render the pathology obscure, and our diagnosis uncertain. Those who have seen the least of disease, are the most confident in their opinions, as to its nature and seat; and they do not begin to distrust their own judgment, until experience has given them abundant proof of its fallacies and imperfections. We meet with a case of inflammation; we know not whether it is to terminate in resolution, suppuration, gangrene, adhesion, or effusion. And then, look at the effects of remedies. In one case, the disease yields promptly, under the influence of the prescribed remedy. Another, apparently similar, goes on unchecked by the same agent, to a fatal termination. To say nothing of idiosyncrasies, than which nothing is more common, how different are the effects of remedies in different constitutions in the same disease? The phenomena of disease are varied and modified, by the silent operation of a new order of causes, and in a manner altogether beyond our control, or even comprehension; though doubtless much is owing to the peculiarities of age and sex, temperament of body and mind, and mental emotions, circumstances which vary infinitely in different cases; sometimes aiding, and sometimes counteracting the effect of our remedies. Suppose then, if this be so, that we understood the pathology of disease ever so well, will not this want of uniformity in the action of our remedies, often thwart and disappoint our best directed efforts? And yet Dr. B. thus remarks, p. 123, 124, &c.

> "A quart of blood, drawn in a given time, from the arm, will always, under the same circumstances, produce precisely the same effects. Two grains of calomel, or half a grain of opium, or a quarter of a grain of tartrate of antimony and potassa, or the three substances in combination, introduced every three or six hours into the system, will always, under the same circumstances, be followed by precisely the same results. All true and direct relationships are invariable. The circumstances of the system, in acute pleurisy, are susceptible of more accurate estimate and appreciation, than they are in many other diseases; and just in proportion to the accuracy of this estimate and appreciation, is the certainty of our knowledge of the therapeutics, or the treatment, of this disease. If our knowledge of these circumstances could be made perfect and absolute; if it could be made as nearly so as our knowledge of the composition and properties of calomel, tartrate of antimony and potassa, and opium, is, then our knowledge of the relations between these circumstances, on the one hand, and these substances, on the other, would become, also, perfect and absolute. The imperfection of our knowledge of the relationships between these two elements—the disease, on the one hand, and the therapeutical agents, on the other—must grow out of, and depend upon, the imperfection of our knowledge of one of the elements themselves. And here, as everywhere else in practical medicine, this imperfection is in the knowledge of the disease; not in that of the composition and properties of the remedies. This composition and these properties we are sure of; they are positive; they are constant. We may be entirely certain, that the calomel, the tartrate of antimony and potassa, and the opium, which we administer in a case of pleurisy to-day, are identical in composition and character with those which we administered in another case of the same disease yesterday. And if the two cases of disease were alike, the effects of the remedies must necessarily be the same."

It is unnecessary to point out the fallacy of this reasoning, as every practitioner is aware that one constitution is more readily affected than another, without reference to the amount of disease. The medicines administered may be the same, the susceptibility to the influence of the medicines differs essentially in different individuals.

We pass over Chap. X., which treats chiefly of nosological and therapeutical diagnosis. Dr. B. is no advocate for doing away with nosological distinctions; on the contrary, he is for maintaining them. As a true disciple of Louis, he seems to think that a new era in science has dawned, in which diseases are to be discriminated with far greater accuracy, minuteness, and comprehensiveness, than has ever yet been done. We have no doubt that this school of modern medical observation has done great good, by insisting on the importance of a closer and more careful study of disease; but we suspect that they have found differences where none existed, and in condemning the doctrine of the *unity* of the disease, have gone as far to the opposite extreme, and created specific diseases where none existed, except in their own imagination. It is possible that the physicians of Great Britain and this country have been too much in the habit of "gratuitous generalization;" but for the disciples of Louis to assume for themselves, *par excellence*, the title of "School of Modern Medical Observation," is an affectation of superiority, which we are by no means disposed to concede to them. Rush, who believed in the unity of disease, was as close an observer of its phenomena, as Louis himself; let us then hear no more of a "new era having dawned" upon science.

In discussing the third proposition, relating to the character and conditions of principles in medicine, Dr. B. has some very judicious observations, which are well worthy the attention of the medical man. After stating that the constituent elements of a law or principle in the science of life, do not differ from those of a law or principle in physical science, and that the *law* consists in the constancy of a phenomenon, or the invariableness of a relationship, that these principles are approximative, and not absolute, the degree of fluctuation being confined within certain limits, Dr. B. proceeds to illustrate it by statistical calculations, in relation to the proportion of sexes at birth, the relative mortality of different diseases, &c., and then he proceeds to remark:

> "When we come to apply the foregoing rigorous doctrines to *what are commonly called the laws, or principles*, of therapeutics, how will these laws come out of the trial? Subjected to the ordeal of these doctrines, what becomes of the great mass of medical testimony to the efficacy of medical treatment? In how many instances, and to what extent, have the fundamental conditions of the establishment of any therapeutical law been fulfilled? How far have the facts been really *comparable facts?* In how many series of observations, has the nosological diagnosis, even, been established beyond any reasonable doubt; and, what is still more important, how accurately and clearly have the *varieties* or *forms* of the disease been arranged in their appropriate categories? And even where these and the other essential conditions have been fulfilled, in how many instances have the observations been extended to a number of cases sufficiently large, to determine, with any positiveness, the actual results of the treatment upon the mortality of the disease? Alas! my brethren, there can be but one answer to all these questions; and humiliating as that answer may be, it is much better to make it, to hear it, and to give heed to it, than voluntarily to shut our ears and our eyes, and still stumble on in the dark. What is the character of the great mass of medical observation, in regard to the treatment of diseases, recorded in books and in medical journals? Dr. A. gravely reports a series of cases of what he calls tubercular consumption, all cured by his new method. But not a syllable is said about any evidence of the actual existence of the disease in any of his cases, derived from its physical signs; it may be only a year or two since the commencement of his observations; and no information is furnished as to the number of cases which have terminated fatally under the same management. Dr. B., with the same gravity, and apparent honesty, boasts, that he has been remarkably successful in the cure of *scarlet fever;* because he has not lost one of eight or ten, or it may be twenty cases, or *about* this number, of the disease, that have fallen into his hands, during the last season. With great self-complacency, he compares the wonderful results of his own skill with those of a neighboring practitioner, who, *he has understood,—and he has no doubt of the fact,*—has lost all, or nearly all of the cases of the same disease, which have unfortunately come under his care. The idea of inquiring how far the two series, or classes, of cases have been *comparable*, never seems to have entered his mind. Not a word

is said about the form or variety of the disease, which either he, or his neighbor, has been treating: although, supposing the results to have been as he has stated them, the probability is, that his own cases belonged to the simple form of the disease, and those with which he compares them to the anginose, or malignant form. Dr. C. announces to the medical world, that for the last year and a half, perhaps for the last four or five years even, he has been uniformly successful in his treatment of croup. He says not a syllable about the form of the disease in the cases which he has managed; he has not ascertained whether they were cases of true membranous, or non-membranous croup. He may not be aware that there is any such difference in the forms of this disease. On a further investigation into the real state of the facts, it may be found, perhaps, that the number of cases, of which he had kept no positive record, but which he really thought was very considerable, after all only amounted to some eight, or ten, or a dozen; and that from amongst these, even, he had excluded one case, because the child had been scrofulous and feeble ever since its birth; and one other, because he did not see the patient till a day or two after the first appearance of the disease; and still a third, because it had not been properly treated by the physician who first had the care of it; and, finally, it frequently comes up, at last, that one case, which he had treated from its commencement, had terminated fatally, but it had entirely escaped his recollection. This sketch of the general character of medical testimony as to the effects of treatment, in these diseases, and in many others, is neither exaggerated nor falsely colored. I appeal to the experience of all close and philosophical observers, now living; and to the multitudinous records on the pages of medical books and journals, for the proof of its faithfulness and its accuracy."

The truth of this picture must be admitted by every one, as all must acknowledge the necessity of more accurate observations, and a more particular consideration of all the circumstances that have a bearing upon the individual case. Abercrombie has laid down the rules of proceeding in such cases with such clearness and force, that we think it useful to present them in this place.

" In forming a collection of facts, as the preliminary step in any inquiry, the following rules ought to be kept strictly and constantly in view, before we advance to any conclusions.

" I. That all the facts be fully ascertained; that those collected by ourselves, be derived from sufficient observation; and that those which are received from others, be received only as the testimony of persons fully qualified to judge of their accuracy, and who have had sufficient opportunities of acquiring them.

" II. That the statement include a full and fair view of all the facts that ought to be taken into the investigation; that none of them be dis-, guised, or modified so as to be made to bear upon a particular doctrine that no essential facts be wanting.

" III. That the statement do not include facts which are trivial, incidental, or foreign to the subject.

" IV. That we do not receive as facts statements which are not facts, but opinions or general assumptions."

We conceive that the great merit of Louis consists in following these rules, and pursuing that method of observation and *inductive reasoning* so clearly laid down by the father of modern philosophy. He has exhibited uncommon tact, not only in collecting, but in arranging his facts, according to the characters in which they agree; separating those which were merely fortuitous or accidental, and giving prominence to those which were uniform, and which observed a certain relationship. In this way he *deduced his general principles* of treatment in typhoid fever and rheumatism, and his principles of pathology in phthisis, &c.; and his writings are valuable solely from the fact that he has adhered so closely to the recognized rules of philosophizing in medicine, laid down by Bacon and so admirably illustrated and set forth by Abercrombie. We deny then, totally, the truth of the assertion that Louis has proposed a *new method* in prosecuting the study of medicine, or that he is the founder of a new system. The numerical system, as it has been pompously styled, has existed from Hippocrates down to the present time; even Juvenal, the poet, was not ignorant of it, as appears from his Satire on the quack Themison:

> "Quot Themison ægros autumno occiderat uno."—*Sat.* 10, l. 221.

Themison, it seems, killed a *larger number* of his patients than his brother quacks. Even Dr. Jackson, in his Preface to Louis, on "Bloodletting," remarks, "that Louis has not brought forward a new system of medicine," and that the *method* he pursues "is nothing else than the method of *induction*, the method of Bacon, so much vaunted, and yet so little regarded," p. 9.

So far from doing away with all *reasoning* in medicine, his chief merit consists in the fact, that he is a close reasoner, and adheres very strictly to the rules of illustration laid down by Bacon. "It was only," says Dr. Jackson, "when M. Louis had accumulated a great mass of facts, that he began to deduce from them any general principles." He speaks continually in his work of "deducing general principles from facts," not only in pathology but in therapeutics, so that Dr. B. by no means gives the views of Louis when he states that a "law, or principle, does not consist in any intellectual *deduction* from the phenomena, or their relationships." Our limits will not allow any further discussion of the views contained in this work. As they are calculated to exert, as we believe, an injurious influence in medicine, we could not pass them by without entering our protest against their reception; and in doing this, we cheerfully concede to the author the merit of distinguished learning, talent, and zeal in his profession. As we do not, with him, belong to the school of *empirics*, we, of course, do not regard empiricism as true medical philosophy. The sect has existed from the days of Serapion, long anterior to the commencement of the Christian era, down to the present time; and although we are indebted to its followers for many valuable facts, yet had the cultivators of medicine been exclusively confined to this school, it would, at this day, have little claims to rank as a science. We conclude our notice of the work by the following remarks on Homœopathy, in the justice of which we can cordially concur:

> "I have spoken of Hahnemann; and I will conclude this kind of illustration, by a short examination of what is called the homœopathic system of medicine. It is possible, perhaps, that some of my readers may be surprised, that I should thus recognize the claims, or pretensions, of this system to the character of a *medical doctrine*. But its claims are just as legitimate, as those of any of the systems of which I have already spoken. They are of the same nature; they rest upon the same grounds; they differ, in no respect, from the claims of Methodism, Cullenism, Brownism, or Broussaisism. Whether there has been, or has not been, more charlatanry amongst its disciples and practitioners, than amongst those of other doctrines, it in no way concerns my present purpose to inquire. The system, I have said, claims our suffrages, on the same grounds that are set forth by all other systems; and I intend to test its soundness by an application to it of the same philosophical principles, by which those other systems have been tried. This, certainly, its friends and advocates cannot complain of.

I will not condemn it, on the ground of any apparent improbabilities or absurdities, which it may involve. I am ready to admit and to believe any and all of *its* assertions, on the same conditions upon which I admit and believe any and all other assertions. I shall not endeavor to ridicule its infinitesimal doses, nor that element, in its pathology, which refers hysteria, mania, epilepsy, every species of spasm, softening of the bones, cancer, fungus hæmatoides, gout, hæmorrhoids, dropsy, epistaxes, hæmoptysis, asthma, suppuration of the lungs, impotence and sterility, deafness, cataract, gravel, paralysis, all kinds of pains, and very many other chronic diseases, besides a large majority of acute diseases, to *psora* or *itch*, as their only true, fundamental and productive cause! All this, and much more, even the assertion that a homœopathic dose of mesmerism will snatch from impending death a case of uterine hemorrhage, I am quite ready to admit and receive, as true and sound doctrine, whenever it is so established, according to the philosophy of this essay,—but not till then.

"The leading principles of the homœopathic doctrine may be thus stated. I derive them from the French translation of Dr. Hahnemann's exposition; and whatever modifications they may have undergone, in the hands of his successors, can in no way affect their relations to the true philosophy of medical science. I may say the same thing of the details of these principles; these details have no bearing upon my present purpose.

"1. To the entire human organization, is superadded an immaterial principle, —a dynamical, or moving, force,—active in itself,—by which the organization is ruled and controlled. It is this dynamical force, or principle, upon which all morbific causes or influences act; and the disturbance which these causes occasion in this principle, operates of necessity upon the organization, deranging its healthy actions, and perverting its natural sensations.

"2. Every modification of this immaterial and independent principle, through the altered actions and deranged sensations of the organs, which it governs and moves, manifests itself by external signs, or symptoms, which are always recognizable and appreciable by the attentive and careful observer; so that *the totality of the symptoms*, in any given case, becomes an absolute and infallible index and exponent of the changes in the organs, or, in other words, of the disease. These changes, themselves, are beyond the reach of our investigation, so that the study of anatomical lesions is only a vain dream.

"3. The vital force being dynamic power, the morbific causes, occasioning its disturbance, can do this only in virtue of a like dynamic power in themselves; and these disturbances, thus produced, can be removed only by modifiers, or remedies equally dynamic in their character, and acting on the vital force.

"4. The effects of all modifiers, or remedies, upon this force can be certainly and positively ascertained, only when the force itself is not already disturbed by the action of morbific causes,—or, in other words,—when the body is in a state of perfect health. The action of these modifiers is constant and uniform; so that when they act as remedies it can only be by modifying the vital force precisely as they do in health.

"5. The totality of the symptoms and the disease being, so far as our knowledge is concerned, equivalent terms, or the same thing; the former being removed, it follows of necessity, that the latter is cured.

"6. This cure can be accomplished only in two ways,—first, by exciting, through the agency of modifiers, or remedies, actions in the vital force *like* those which already constitute the disease; or, second, by exciting actions in this force *unlike*, or opposite, to those constituting the disease.

"7. All pure experience, and all careful trials, show that the latter is impossible; and that even when the symptoms are diminished or removed by it, they never fail to reappear in an aggravated form. It follows, then, that there is only one method by which the totality of the symptoms, representing the disease, can be certainly and permanently removed; and that it is through the agency of those substances and influences, which so modify the dynamic force of the healthy body, as to produce a totality of symptoms *like* those which represent the disease.

"8. The artificial action, constituting this totality, must be a little stronger, or more powerful, than that representing the disease.

"9. Pure experience shows, that all true remedies do act in this manner; and do cure diseases. All opposite, or allopathic experience, as it is called, is false and deceptive. Diseases are never removed by substances which do not act in this manner.

"10. Remedies, or modifiers, in order to produce the desired effect on this disturbed vital force, must be introduced into the body in exceedingly minute and almost infinitesimal quantities.

"Such I believe to be the fundamental principles of the homœopathic doctrine. I have endeavored to state them as clearly and explicitly as possible. Their details, their practical application, their illustrations, and the reasoning by which they are supposed to be supported, do not at present concern us. My single purpose is to see how far they are conformable to the philosophy, which it is the design of this essay to vindicate and establish. Are these *principles*, as they are called, true principles, according to the legitimate and philosophical meaning, which ought to be attached to this word? Do they consist of phenomena and relationships, of an appreciable and positive character, ascertained by absolute and extensive observation? Let us see.

"How is it with the first, fundamental proposition, upon which all the others are made to depend, and from which they flow? What is the *material* of which this foundation consists; upon which the entire homœopathic superstructure is made to rest? Is this proposition *fact*, or *fancy?* Is this foundation wrought from the adamant of positive phenomena, or is it woven with the tissue of dreams? It is not possible that there can be but one answer to these questions, unless the answer comes from a dreamer. *There is no evidence, whatever, of the existence even*—to say nothing of its alleged properties and relations—*of this independent, dynamical force, presiding over, and moving, the organic structure.* The existence of this force is an *assumption*, just as perfectly and entirely gratuitous as it is possible to imagine. It is more so than that of the *strictum* and *laxum* of the methodists, or the *spasm* of Cullen. The whole doctrine of this dynamical force is nothing but physiological transcendentalism. *Life is the sum of the organization, and its actions. This is all we know—this is all we can know, about it. What* the vital force is—*how* it is connected with the organic structure—the nature of the bond between them—the intimate manner in which each is acted on by its modifiers—is utterly unknown to us; and the probability is, that this ignorance will never be removed. This element in the doctrine of Hahnemann is no new thing; it is very much like the *archeus* of Van Helmont, and other old systematists, and the evidence of its existence is of just the same character.

"In regard to the second proposition, it is not enough to say that it is gratuitous; it is worse than this. It is in direct and unqualified opposition to the most extensive and positive observation. It is not true, that every modification of the condition of the living structure and powers has its invariable and characteristic external sign, or manifestation, through which the modification is made known. Certainly, it is by their signs and symptoms, that internal diseases are revealed to the physician. But daily observation shows, that there is no uniform and invariable relationship between the extent and intensity of disease, and its external signs. The prominency, the number, and the combination, of these, depend upon many circumstances beside the disease with which they are connected. Has no change taken place in the condition of the living structure, or its actions—in the relations, susceptibilities, and tendencies, of one or both—during the latent period of the contagion of small-pox, yellow fever, or hydrophobia? Is this independent vital force of homœopathy—admitting it to be present, with all its assumed properties—in no way affected by its poison or terrific energy, that has crept into the system? It is impossible to suppose that such can be the case; but the modification, whatever it may be, gives no outward and intelligible sign of its existence. Neither is it true, as is alleged by homœopathy, in connection with this subject, that the internal changes in the organs themselves are wholly beyond our means of investigation. To a very great extent they are entirely *within* our means of investigation, and they constitute one of the most valuable and positive elements in our knowledge of disease.

The third proposition, asserting the existence of certain properties and susceptibilities of the dynamic vital force, is like the first in regard to the separate and independent existence of the force itself, wholly gratuitous.

"The fourth principle in the doctrine of homœopathy is, that the remedial action of all substances can be ascertained only by the effects which they produce upon the dynamic power in its undisturbed state. The doctrine, that all therapeutical laws consist in ascertained relationships between morbid conditions, on the one hand, and their modifiers on the other, has been so fully stated, that it is unnecessary to say anything further upon this opposite principle of Hahnemann. I will not comment in detail upon the several other propositions, as I have arranged and numbered them. The principles which they profess to set forth are not *principles*, but *assumptions*. There is no proof, that diseases can be removed in only two ways, or in only one of two ways. There is no proof, that remedies act on the assumed vital force, by producing a modification *like* that in which the disease consists. We have no knowledge, whatever, of the intimate and ultimate action of modifiers, or remedies, on the structure of susceptibilities of the body. All these elements of the doctrine before us, so gravely set forth as facts, are anything but facts. They are all 'such stuff' as dreams are made of,' and nothing else. The whole system of Hahnemann, from beginning to end—in its principles, and in its details—is one of unadulterated and arrogant dogmatism, resting exclusively upon *à priori* reasoning, or, in other words, upon mere speculation.

"But it will probably be said,—the doctrine is sustained by facts; its soundness and correctness are corroborated and demonstrated by the results of observation,—it professes to rest upon experience, as well as upon reason, and the nature of things. The experience upon which Hahnemann founds his doctrine, and by which he professes to sustain it is, if this is possible, more fallacious, and less philosophical, than the doctrine itself. I only insist, that this experience shall be tried by the same test, as has been applied in this essay, to *all* medical experience. Let my readers examine the experience which Hahnemann calls in to support his doctrine, and refer it to the rules, which have been already laid down, as applicable to all experience in medical science. His work is full of bold and unqualified assertions upon this subject, I admit; but the evidence of the experience itself is utterly wanting. In the entire history of medical doctrines, there is not one in regard to which the proof of their soundness derived from experience is so utterly defective and unsatisfactory, as it is here. Perhaps the most striking fact running through the whole exposition, or Organon, of Hahnemann, is the *absolute nullity* of all conclusive observation. He says, with no qualification whatever, 'the allopathic method never really cures;' 'the homœopathic method never fails to cure;' but when we look for any evidence of the truth either of one allegation or the other, it is nowhere to be found. There is no evidence, in the first place, at all conclusive, of the power of the remedies themselves, to produce, in the healthy body, the effects that are so confidentially attributed to them. The author of the system lays down a general law, which he wishes us to regard as invariable and absolute,—for instance, that similar diseases must and do cure each other,—the stronger disease always curing the weaker,—and then he gives such facts as the following to prove it. Small-pox is often complicated with ophthalmia and dysentery,—they are similar diseases. Dezoteux and Leroy report each a case of chronic ophthalmia, cured by inoculation; and the occurrence of small-pox cured a dysentery in a case reported by Wendt. Then another law,—equally universal and absolute,—is established by the following evidence, and by a few other similar cases:—Tulpius tells us, that two children, having contracted *tinea*, were free from attacks of epilepsy, to which they had been subject, so long as the tinea continued. The worthlessness of all such experience has been fully shown in another part of my essay; and it is upon such experience, that homœopathy,—apart from its *à priori* doctrines,—urges its claims to our consideration. The efficacy and advantages of its mode of treating disease, can be established in only one way,—by only one method. Let it produce its comparable facts,—its cases of disease, clearly distinguished, and separated from other diseases, both in their nosological diagnosis, and their varieties,—and let it produce these in large numbers,—not in groups of twos and threes, or of twenties and fifties even, but of hundreds;

—let it conform to the rigorous and indispensable conditions, which have already been so fully stated; let it follow the methods which have already been laid down; and then, and not till then, true philosophy will give heed to its words. These things it has not yet done; it cites in its favor only the loose tongue of common report; the same tongue that proclaims, *with like confidence, and on precisely similar proof*, the superiority of Swaim's panacea, Brandreth's pills, and lobelia. The smallness of the homœopathic doses; its apparently improbable and exclusive mode of treatment, constitute no philosophical and valid objection to the system itself. I do not deny its claims, on these grounds, or for any such reasons. I doubt and deny them,—so far I mean as the results of its practice are concerned,—solely because they are not established by competent observation. Whenever they can be so established; whenever in conformity to the conditions of all conclusive and satisfactory experience in therapeutics, it is shown, that homœopathic treatment cures diseases with more readiness, ease and certainty, than other treatment does, I will at once embrace and believe it; in no way prevented, or influenced, by any *à priori* considerations against it whatever.

"Its fate as a *doctrine* is certain and inevitable. Of this, the voices of all medical history are here to inform us. Like all its forerunners, and like all its conceivable successors, constructed on false principles; consisting, not of positive facts and their relationships, clearly ascertained, and suitably classified; but of gratuitous assumptions of facts and relationships, altogether imaginary, one only possible doom awaits it. After living its short day of sunshine in the popular and professional favor, it will follow in the footsteps of its departed predecessors,—methodism, chemicalism, humeralism, mechanicalism, Cullenism, Brownism, Broussaisism, Rushism, Cookism, Gallup-ism, and all the host of other so called rational *isms*:—

'It shall be borne to that same ancient vault,
Where all the kindred of the Capulets lie;—'

there to rest, as in the spirit and inspiration of a better philosophy, we may not undevoutly hope, in a sleep that shall know no awakening; its final departure rendered somewhat more respectable perhaps, although hardly accelerated, by the glittering arrows from the full quiver of Holmes, which are trembling in its heart."

In conclusion, we would add, that although obliged to differ from the accomplished author in relation to the fundamental propositions and doctrines of his work, we nevertheless cheerfully admit that it contains a great deal of valuable and interesting matter, expressed in pure and elegant language. It would have given us far more pleasure to have bestowed unqualified praise than qualified censure, were we not fully impressed with the conviction that the tendency of the work will be rather to encourage empiricism and place it above the scientific practice of medicine, than advance its progress as a science, or render it more efficient for the relief of disease. The *empiric*, and we use the word as synonymous with *quack*, as they are now employed as correlative terms, will need no arguments to sustain him in his course other than may be found within the pages of this work. Dr. B. has here opened an armory, from which the quack may draw forth burnished weapons in all time to come. Fortunate may the author esteem himself, should he escape the arrows that will be drawn from his own well-stocked quiver.

C. A. L.

Art. XI.—*Medical Lexicon of Modern Terminology*, being a complete Vocabulary of Definitions, including all the technical terms employed by Writers and Teachers of Medical Science at the present day, &c. By David Meredith Reese, A.M., M.D. New York: H. G. Langley, 1845: pp. 240.

This little volume is commended to the profession and public, simply as a vocabulary of definitions, "without any claim to novelty or other merit, except convenience, brevity, simplicity, and accuracy." The author hopes that it will be deemed worthy of approval; and thinks that "it cannot fail to be useful as a help to students and junior practitioners, for whose benefit it has been prepared." We are pleased with it; and doubt not but that it will prove a useful pocket-companion to those who are not yet familiar with the technicalities of our science.

F. C. S.

Art. XII.—*American Medical Biography*, or Memoirs of Eminent Physicians, embracing principally those who have died since the publication of Dr. Thacher's work on the same subject. With Engravings. By Stephen W. Williams, M.D. Greenfield, Mass.: 1844. 8vo. pp. 664.

This work, that is very appropriately dedicated to the Medical Profession throughout the United States, possesses, in our judgment, peculiar claims upon them for their patronage and support. It has been compiled with immense care and labor, and with peculiar fidelity, partly from a large mass of authentic *matériel*, scattered throughout our medical and other periodicals, and partly from original documents and memoirs, furnished expressly for the work, by the friends of the respected deceased, and all wrought up by the hand of a master, with equal skill and judgment; the memoirs being arranged in alphabetical order. It has evidently been a labor of love on the part of the excellent author, to embalm the memories of the great and the good in our profession, and hand down their names to other generations, for the imitation of those who are to succeed us. Treading in the footsteps of his venerable predecessor, Dr. Thacher, who originated the plan of an American Medical Biography, Dr. Williams has for years exhibited the most untiring industry and perseverance, in collecting materials from every quarter, and has spared no expense which was necessary to crown his efforts with success.

Among the memoirs contained in this beautiful volume (the paper, type, and binding of which might well entitle it to a place among the annuals), we observe the names of Hosack, Dewees, Physick, Parrish, James, MacNeven, Thacher, Holyoke, Bartram, Baker, Godman, Glover, Fiske, Fisher, Wells, Eberle, G. B. Doane, Coventry, Cogswell, Cobb, Cleaveland, Woodward, Moses A. Lee, Williams, White, Wagner, Walters, Trowbridge, Todd, Tichnor, Nathan Smith, Valentine Seaman, Edward Post, Wright Post, Miner, Linn, and others. The portraits of Doctors Post, Hosack, Dewees, Stone, Linn, Williams, Physick, Woodward, &c.,

&c., are, in general, very well executed, and are admirable embellishments of the work, which, by the way, is published at the author's own expense. We have said enough, perhaps, to indicate to the reader our opinion as to the value of this publication, and we have to add our sincere wishes that it will be extensively sought for, and read. Individual enterprise, such as has been exhibited in the preparation of this noble volume, is fully entitled to a liberal and generous support, from a profession that has always delighted to do honor to the memory of its distinguished members; and we therefore trust that no one will refuse to purchase a copy of the work. C. A. L.

Art. XIII.—*The Physiology of the London Medical Student, and Curiosities of Medical Experience*, by Punch, with Illustrations by Leech. Philadelphia: Carey & Hart. 1844.

Seduced, doubtless, by the holiday spirit abroad at this season, when even "greybeards wag ale," from our severer studies, we have devoted a half-hour to this little book, which, fearless of the frowns of the unbending and strait-laced, we confess not to regret; so sweet, though brief, was the enjoyment of that half-hour, and so delightful the flavor that it has left upon our literary palate. We laughed heartily, as we read, till we shook in sympathy the leathern sides of old Hippocrates, upon whom we had thoughtlessly reposed our sacrilegious elbows.

This little work is an overflow of genial humor from the abundance of Punch's (the popular London Magazine) wit and genius; a draught of that generous liquor, concocted by Jerrold, A'Beckett, and other witty spirits of Old England, which circulates so freely, and cheers so warmly. It is a delightful *extravaganza* history of the London Medical Student's experience in the Metropolis, full of humor, where the jokes rise sparkling like the beads in a glass of champagne. Punch deserves well of all mankind for his liberal addition to the stock of human enjoyment. In these working days, it becomes a matter of serious moment, and requires no little effort, to raise a smile upon the care-worn face, and to exhilarate the jaded spirit. We would remind those who may think that we have travelled "out of the record," in noticing a work of this character, that a hearty laugh, if not for the laugh's sake (which to us, we confess, is reason enough), deserves their countenance, as a therapeutic agent of no slight efficacy, for "a merry heart doeth good like a medicine." We would recommend this little work, in the same spirit as Sydenham advised the perusal of Don Quixotte to Hypochondriacs.

R. T.

ART. XIV.—*On the Formation of Professional Character*, an Introductory Lecture. by JOHN P. HARRISON, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. pp. 15. Cincinnati. 1844.

THIS lecture contains much good advice to medical students. We are glad to see that the author insists on the importance of Hospital Study. He represents to his students, that in order to qualify themselves for practice, careful observation of disease, long continued, at the bedside, and in the dead room, is indispensably necessary. This is a fact of vast importance to the student, and not often enough presented to him.

S. S. K.

ART. XV.—*The Practice of Artificial Dentistry*, &c. By ARCHIBALD McILROY, Dentist. pp. 36. New York; 1844.

THIS is a small work, containing short descriptions of various operations in dentistry. We really hope that books upon this truly useful art may multiply.

ART. XVI.—*Reply of* WM. McDOWELL *to Dr. Yandell's Rejoinder, in a Controversy relative to the cure of Consumption.* Louisville, Ky. 1844. pp. 30.

THIS pamphlet gives an account of twenty-one cases of reputed phthisis, which Dr. McDowell *professes* to have cured. That nature not unfrequently cures tubercles spontaneously, every one familiar with morbid anatomy must admit; and that medical treatment sometimes produces a like result, ought not to be denied. But if Dr. McDowell wishes to convince the medical public that he has cured twenty-one cases of phthisis, he must, in the first place, prove to them that he has been dealing with that disease.

His cases, as he has published them, are too imperfect to answer this purpose. He must, therefore, give more details concerning them, and describe the symptoms, and especially the stethoscopic signs and morbid appearances, more accurately.

If Dr. McDowell has neglected to obtain more minute particulars respecting his cases, it is to be regretted, and we would solicit him to observe, in future, with more accuracy and care. In the meantime, he ought not to be surprised if we doubt that he has, in reality, cured so many cases of phthisis as he represents.

There is one circumstance connected with this *Reply* that we cannot pass over without decided reprehension. We allude to the menace with which the pamphlet closes. Such examples are too common in our country, and are falsely attributed to a chivalrous spirit. To imitate them is unbecoming to a gentleman, a philosopher, or a Christian.

S. S. K.

Art. XVII.—*The Claims of Religion upon Medical Men.* A Discourse delivered in the Tenth Presbyterian Church, Philadelphia. By H. A. Boardman, Pastor of the Church. Philadelphia: 1844. pp. 24.

It rarely falls to our lot to have submitted for notice in a medical journal, productions of the character of the one before us, and we hail with pleasure the opportunity afforded of presenting to our readers the analysis of a pulpit discourse of great intrinsic value, and worthy of the very reputable source from which it has emanated.

This eloquent sermon, published at the request of the gentlemen before whom it was delivered, is well calculated to make a favorable and lasting impression on the minds of all those of our profession who will take the trouble to peruse it. We are much pleased with its general tone and spirit, and cannot withhold the expression of our conviction that it is calculated to be productive of much good, and that it will prove a lasting benefit to those to whom it is addressed.

After indicating what had been the degraded condition of medicine among the ancient Jews, and alluding to the estimation in which it is held even at the present day amongst some of the oriental nations, owing to the superstitions with which it is trammelled, the learned divine pronounces the following just eulogium on our science and its votaries—

> "In Christian countries, however, medicine has thrown off the superstitions and puerilities with which it was so long deformed and paralyzed, and taken its appropriate place among the sciences. This is neither the time nor the place to detail the steps by which it has vindicated its claim to the elevated position it now occupies. It is more to my purpose to observe that there is no science, theology excepted, which opens a nobler field of inquiry to the human intellect—none which is more intimately associated with our earthly happiness—none which is more entitled to the respect and veneration of society. The benevolent design of medicine is, indeed, its leading characteristic. While a large portion of mankind, even in civilized countries, are employed in avocations which are either destructive to human life, or which aim only at "multiplying the pleasures of the opulent, giving a higher zest to the fruitions of luxury, and gratifying the caprices of vanity and pride," the physician "interposes in the moment of exigence, and obeys the call of distress; he administers the cordial to the fainting spirit, rekindles the expiring lamp of hope, and often decks the countenance with smiles, which death, under the ravages of disease, had marked for his victim, and covered with his shade. He leaves it to others to accompany the human race in their revelry and their triumphs; while *they* bask on the bosom of the ocean, or spread their sails to the wind, he presents himself on the shore, and rescues the shipwrecked mariner from the waves. With a silent and invisible energy he contends with the powers of destruction, and often rescues from the grave him that seemed 'appointed to death.'"

At page 11, we find the following graphic description of some of the trials of temper to which medical men are subjected, and which certainly evince a necessity for the restraining and consoling influence of true religion to enable them to support with a Christian spirit, the many vexations which they are doomed daily to encounter in the exercise of their calling—

> "In estimating the value of true religion to medical men, we must take into account *its salutary influence upon the temper*. I design no reflection upon the profession by this remark; it is poets, not physicians, who, according to the

proverb, constitute the 'genus irritabile.' The profession, as such, is probably not more infested with evil tempers than the other learned professions; and, if the fact were otherwise, it could excite no surprise; for physicians are certainly subjected to very great trials of temper. These proceed mainly from two sources—their patients and their professional brethren. The whims and caprices of the sick, and their officious relatives and neighbors, are brought to bear upon the physician in full force. He is blamed for his tardiness in responding to their call, when, perhaps, he stopped to prescribe for a patient whose life was in imminent peril. He comes too early or too late—too often, or not often enough; he gives the wrong medicines, or in wrong doses; he orders phlebotomy where calomel would answer, and administers a bolus where he should apply a cataplasm; his treatment differs from that of his predecessor—or, perhaps, accords with it—and in either case it is erroneous; his patient recovers, but he owes his recovery less to his skill than to a good constitution—or he dies, and then, by common consent, he has put him in his grave. I am not denying that physicians may, and often do err in all these ways, nor that complaints like these may, in many cases, be too well founded; but it is no less true that people are apt, in dealing with them, to be unreasonable, capricious, unfeeling and reckless of their professional reputation. It is trials of this sort to which I am alluding in this connection.

"And yet even these are not always their worst trials. David, in speaking of the treachery of his confidential counsellor, Ahithophel, says—'For it was not an enemy that reproached me; then I could have borne it; neither was it he that hated me that did magnify himself against me; then I would have hid myself from him: but it was thou, a man, mine equal, my guide, and mine acquaintance.' (Ps. 55: 12, 13.) So it is with physicians often. Their 'worst foes are those of their own household.' They have to encounter not merely an open and generous rivalry; not merely the assaults of avowed and, perhaps, malignant hostility; the former of which no liberal mind would deprecate, while the latter usually neutralizes itself; but the arts of a secret envy, which no sagacity can foil and no merit withstand. What these arts are it is not my place to specify. The fact is all that is essential to my argument. And I adduce the fact that physicians are exposed to peculiar *trials of temper*, as well from the unprofessional conduct of their brethren, as from the inconsiderateness, caprice and resentment of their patients, as a proof of the great importance of personal religion to them. Religion, it is true, cannot secure them an exemption from these vexations; although, by its various influences upon the character and reputation, it may contribute to lessen their number. But it can greatly enlarge their capacity of endurance, and fit them to bear what, without its aid, would be intolerable. The temper fostered by religion—the meek, patient, forgiving, benevolent, ingenuous temper everywhere inculcated in the Bible, not simply as a graceful appendage of Christianity, but as one of its essential elements—is the best safeguard a physician can have against the wrongs we have been contemplating, and his best antidote to them when they *are* inflicted. A man with this temper will be uniformly just to his brethren and his patients. He will be slow to give, and equally slow to take, offence. He will be free from envy and suspicion, and will put the best construction upon all doubtful passages. He will be as jealous of his professional as of his popular reputation; and scorn to extend his practice by conniving at quackery, or catering to the empirical vagaries of his patients. Instead of attempting to supplant his competitors by artifice or fraud, by malign insinuations, or sneers at their mistakes, he will treat them, on all occasions, with the respect that is due to them, and rely for success not so much upon subverting their reputation, as upon his own assiduity and skill. Where he has perpetrated a wrong, he will not be ashamed, on discovering it, to acknowledge the offence, and make every reparation in his power. He will be careful to observe the established etiquette of the order; and avoid infringing that code of ethics which, though unwritten, is well understood, and the inflexible maintenance of which, even in its apparently trivial provisions, is of vital importance to the dignity and success of the profession. All this, and much more than this, a physician under the predominant influence of true piety will do, not because his interest will be promoted by it, nor simply because it is his duty to do it, but also because it is the very course to which his feelings prompt him, and which he finds his happiness in pursuing. That a physician of this character will ordinarily escape many of the annoyances and grievances which others encounter, and that when they do occur he will be better prepared to endure them, is too evident to stand in need of argument. I do not hesitate, therefore, to adduce *the salutary influence of religion upon the temper*, as a reason why medical men should give their early attention to it."

After urging upon them the necessity of invoking divine assistance, Dr. Boardman reminds physicians, that "without God's blessing they may be baffled by the simplest disease;" and that "with it they may cope with the most intricate and malignant." We agree with him in the opinion that it derogates nothing from the dignity and utility of the science, to admit "its dependence upon Him in whom all creatures live, and move, and have their being;" in continuation of this part of his subject, he asks,—

"Who should invoke the Divine guidance, if not they to whose guardianship the lives and health of communities are entrusted? How delicate, how arduous, how responsible, their duties? Consider the endless idiosyncrasies of the human constitution—the variety and subtlety of diseases—the haste with which, in many instances, it is necessary to determine upon the treatment—and the consequent liability even of the most accomplished practitioners, from these and other causes, to fall into fatal mistakes. The life of a fellow-being, and the earthly happiness of a family, may be suspended upon their decision of a question so nicely balanced that they shrink from deciding it either way. The load of anxiety they sometimes feel in these circumstances must well nigh crush them to the earth. The image of their patient follows them like their shadow; it puts them upon a re-examination of the authorities in their libraries; it throws a gloom over their fire-side enjoyments; it sits beside their couch at night; it makes them feel, for the time, that all the emoluments and honors of the profession are no equivalent for its trials."

The social position of physicians is described by this excellent clergyman, as facilitating their means of being useful, and they are recommended to cultivate religion, as it will contribute to enhance materially those means,—

"I have repeatedly hinted at the value of religion to a physician, *as greatly enhancing his means of usefulness;* but this point is too important to be passed over in an incidental way. My remarks upon it, however, must necessarily be brief.

"The *social position* of the medical profession presents us with one aspect of this subject. In this view the elements of power are largely accumulated in the hands of physicians. They have, as a class, numbers, education, popular respect and confidence, and maintain that kind of intercourse with society which affords the best opportunities for acquiring and exerting a potent influence for good or evil. While this observation holds true as to large cities, it is still more applicable to those who reside in small towns and villages; and it is among these that the great body of the profession are scattered. The influence of a physician in a situation of this sort, is not simply that of one respectable and intelligent citizen. It is the influence, frequently, of the *leading man* in the place as to literature and science, and of one who enjoys the confidence and affection of the community beyond any other individual in it, unless it may be the clergyman, and he is by no means an exception in all cases. It is highly honorable to the profession, that they are usually disposed to employ their great influence on the side of virtue and the general good. No class of citizens are more prompt, generous, or efficient in abating social evils, establishing public charities, fostering schools, and promoting judicious schemes for the substantial improvement of society. Instances of an opposite kind sometimes occur, it is true. There are not wanting examples of physicians who have combined with the genius of Paracelsus, his drunkenness and debauchery, and whose capabilities of mischief have furnished an apt illustration of the sentiment, publicly uttered some sixteen years ago, in the hearing of the preacher, by a distinguished professor of chemistry and geology, at the eastward, that, while 'no man, except a clergyman, can do so much good as a physician, no man whatever can do so much harm.' Instances of this kind, however, are excrescences upon the profession,—its wens and carbuncles,—which are not to be taken into account in forming a general estimate of its worth. But while the high character of the profession for humanity, public spirit, liberality, and other noble attributes, is cordially conceded, it will not be denied that true piety would establish all these virtues upon a firmer basis, and impart others of a still more benign and elevated character. This is its peculiar and godlike prerogative—to enhance whatever is honorable and praiseworthy, and to supply endowments which neither nature nor education can confer. One of the biographers of the late Dr. Ramsay says of him:—'The great concerns to which he constantly directed his reflections were, the improvement of the moral, social, intellectual, and physical state of his country. To disseminate the doctrines of the Bible, to promote public schools and colleges, and to carry commerce to every man's door by means of artificial roads and canals, and the channels which nature formed, were objects that lay near his heart. . . . . For forty years the press teemed with the productions of his pen, designed exclusively to elevate the spirit, taste, and virtues of his fellow-citizens, and to improve, beautify, and felicitate their common country.' I shall not attempt to show how far the character of this accomplished historian and physician was moulded by religion, and how far by other agencies. It may be safely left to your candor to decide whether religion did not impart an additional lustre to his character, and furnish a powerful incentive to his patriotic and self-sacrificing exertions for the good of his country. So it will usually be. The man who loves to 'disseminate the doctrines of the Bible,' will not be backward in 'promoting public schools and colleges, carrying commerçe to every man's door,' and assisting in every suitable plan designed to 'elevate the spirit, taste, and virtues of his fellow-citizens.' And it is on this ground precisely, to wit, that religion is adapted to enlarge to such a degree *their means of usefulness as citizens*, that I am now urging its claims upon the medical profession."

We cannot, in concluding this notice, avoid contrasting the opinions and sentiments of Dr. Boardman, as expressed in the extracts which we have given from his sermon, with those entertained, by a numerous portion of his fellow clergymen; who, by other means, if not in their discourses, would appear to desire to impair its credit and lessen the usefulness of our profession. We allude to their open and unscrupulous support of ignorant charlatans, as exhibited in the daily publication of certificates to the value of quack medicines, and the success of new and marvellous innovations in established and well tested systems. There are but few of our political journals whose columns do not bear evidence to the fact, that the countenance and support of the clergy is invoked—and successfully invoked, to aid in the propagation of specific nostrums and "cure-alls," the virtues of which are blazoned forth with surprising impudence and audacity.

We are well aware that the names of *truly respectable* divines are rarely appended to these certificates, and would be loth to class men of deserved standing and reputation with those, who, thus forgetful of their high mission, lend the influence of their station to impostors who live and fatten on the credulity of the community; still, the system is carried to such an extent that it is time for the truly intelligent portion of the clergy, to set their faces openly and decidedly against so glaring an abuse of the confidence reposed in their integrity, by the numerous class of parishioners, who, by education and habit, are led to regard with a favorable eye everything bearing the sanction and approval of individuals in whose principles and honesty of purpose, they think that they may implicitly rely. We entertain the highest regard for the clergy as a body, and would advocate any means tending to increase their usefulness and to strengthen the bonds by which they are united with those who have confided themselves to their spiritual care ; but at the same time we expect and demand of them, a conscientious and judicious exercise of the high prerogative which they enjoy.

Be the result of these remarks what it may, we feel that we may assert with confidence, that the names of Dr. Boardman and clergymen of the class which he represents, will never be found appended to certificates of " wonderful and miraculous cures," or vouching for the value of quack medicines in the treatment of diseases, some of which are of such a nature as to lead us in charity to infer that the Reverend Endorser has obtained his information in regard to their efficacy, through " hearsay only," and that he is entirely wanting in all practical knowledge of the beneficial results which he so confidently asserts will follow their use.

F. C. S.

Art. XVIII.—*Lecture introductory to the course of Medical Chemistry, in the Medical Department of Pennsylvania College, Philadelphia.* By Washington L. Atlee, M.D. Philadelphia, 1844.

The purport of this lecture is to point out some of the more important relations which chemistry bears to the science of medicine. " No one can be perfect in medicine without a proper knowledge of chemistry." " Man, the very object of our study, is a chemical laboratory of the most perfect character, in which compositions and decompositions are continually going on, modified and regulated, it is true, by the mysterious principle of life."

Medical chemistry is a much more important branch of their profession than students generally are disposed to consider it, and we too often find it neglected, or held as only secondary to some of the other departments. In this lecture, Doctor Atlee endeavors to attract attention to the manifold advantages attending a thorough knowledge of the relations of chemistry to medicine ; he considers it to be " as closely connected with physiology as with physics ;" and conceives " that no rational pathology can be known without it." A general view is given of several of the more important chemical agents, and the therapeutic action of caloric, light, electricity, the principal gases, and some of the minerals, is briefly indicated, for the purpose of illustrating the intimate connection existing between chemistry and medicine. We fully agree with Dr. Atlee, in the high estimate which he has formed of the value of chemical knowledge to physicians, and hope that he may be instrumental in awakening the attention of students, and leading them to appreciate more fully than they have heretofore done, this branch of science ; a familiar acquaintance with which will so materially aid them in their future studies, and lessen the labor attending the exercise of their complicated professional duties.

F. C. S.

Art. XIX.—*The Cyclopædia of Practical Medicine.* Parts XVIII., XIX., XX. Philadelphia: Lea and Blanchard. 1844.

The three last parts received of this truly valuable Cyclopædia, contain the usual number of well-written articles, to which some important and valuable additions have been made by the American editor. The work progresses rapidly, and will be completed with the next four numbers.

F. C. S.

Art. XX.—*An Introductory Discourse on Medical Education.* By Charles A. Lee, A. M., M. D. Professor of General Pathology and Materia Medica in Geneva College. Geneva: 1844. pp. 40.

When innumerable introductory lectures are being received by us, as is the case at the present period of the year, it cannot be supposed that we have it in our power to devote as much space to the analysis of each particular one, as we should otherwise be disposed to do; nor is it to be expected that all should be equally worthy of a detailed or lengthy notice. Whilst we take pleasure in attesting to the fact, that the great mass of these discourses bear satisfactory evidence of their intrinsic value, and speak well for the Professors of the various schools from which they have emanated, we must confess that there are some few, whose title to the honor awarded them by the students to whom they were delivered, and by whom they are published, is, to say the least, but very questionable.

The Introductory of the Professor of Geneva College, both from the interesting nature of the subject of which it treats, and the satisfactory manner in which that subject is handled, merits to be classed amongst the best of the present season, and deserves a favorable reception from the medical community.

The subject of medical education in this country is one that requires a thorough investigation on the part of those competent to do justice to what is of such vital importance, both to the profession and to the community at large. Our whole system is radically wrong, and we are glad to see such men as Dr. Lee take the initiatory step, in endeavoring to awaken attention to the subject.

F. C. S.

Art. XXI.—*Lectures on the Theory and Practice of Physic.* By John Bell, M.D., and by William Stokes, M.D. Third edition. 2 vols. 8vo. Philadelphia: 1845. Barrington and Haswell.

The early call for a third edition of these valuable lectures, is sufficient proof of the high estimation in which they are held by the profession;

and we are glad to see a work of such sterling value, finding its way gradually into most medical libraries.

Dr. Bell, the American author, is well known to us as being a man of great ability, both as a writer and compiler. The numerous works which have been from time to time published under his supervision, and with valuable notes from his unwearying pen, bear evidence to this fact; and the popularity of the present work is an additional proof that the labors of himself and Dr. Stokes are appreciated, and their precepts approved by the profession. The reputation of Dr. Stokes, the eloquent and accomplished Dublin lecturer, is so well established in Europe, and he is so favorably known in this country, through these lectures, and his Treatise on Diseases of the Chest, together with other contributions to our science, that it would be superfluous to dilate at this time upon his merits.

Several very excellent additions have been made to the present edition; and we are glad to find good articles on subjects which had been previously overlooked, or but trivially noticed. We would indicate the chapters on "Diseases of the Organs of Generation," as a section of the work which has been most thoroughly revised, and which, although it contains but little that is new, presents to the student an accurate view of the present state of our knowledge on this truly interesting subject, the importance of which is thus described by Dr. Bell, in his preliminary remarks to Lecture LXVII.:

> "I cannot enlarge on the subject of diseases of the organs of generation to the extent justified by the importance of the subject. That which I have to say finds, however, its place more appropriately at this time than either antecedently or at a later period. The contiguity of the genital with the urinary apparatus, their community of nervous and vascular supply, and sameness of tissue, and their reciprocal irritation, suggests, naturally, a notice of the diseases of the one after those of the other have been described. Thus, we find, for example, the uterus in close anatomical relation with the bladder, so that displacements, or even simple irritation of the former, affect not a little the functional exercise of the latter; as *e converso*, a distended bladder is apt to cause a common troublesome displacement, and, as in labor, interference with the contractile and expulsive efforts of the uterus. In the male, the urethra is a canal for the passage of urine and of semen, and its inflammation will induce, at times, that both of the bladder and even kidneys, as well as of the testicles. We have seen, when speaking of diabetes, that concurrently with great functional disease of the kidneys there was, also, associated such an atonic state of the testicles as to be followed by loss of virility. Nephritis often gives rise to pain and retraction of the testicle, as orchitis does to disorder of the kidney, and suppression of renal secretion. The most common and, in a measure, diagnostic symptom of stone in the bladder is itching of the glans penis.
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> "In England the diseases of the genital organs have not had justice done to them by the physicians, because they willingly and much too readily yield them up to the surgeon and the man-midwife, by neither of whom can the subject be adequately appreciated without a more profound and enlarged study of pathology, including the sympathetic and secondary disorders of the generative organs, than most of these gentlemen, in their routine practice and limited special views, give to it. Often your professional opinion and advice will be invoked for various derangements of function of the nervous and digestive and even vascular systems, between which and disorder of some one of the genital organs, and especially of the uterus, no connection is suspected by the parties applying to you. Without a knowledge of both the physiological and pathological relation between these organs and those in other regions, and the influence which they reciprocally exert on each other, you will be greatly embarrassed and too often unsuccessful in laying down a suitable course of therapeutical and hygienic treatment.

> "There cannot be derangement of function in any part of the animal economy without some change in the disposition, mood or mind, of the individual. But in no case is this fact so strongly exemplified as in either congenital or in acquired defects of the genital organs. Discourse as two lovers may ever so copiously and eloquently of the refinements of sentiment, the elevation and purity of thought, their disinterestedness of feeling, each being to each a dearer self, certain it is, that all of this would dissolve in thin air, and the love would cease to be either felt or understood, or even imagined by the swain, if he were by any cruel chance, as that which happened to Abelard, to become emasculated. Nor could the sweet shrinking and blushing Phyllis, on her side, retain her former delightful emotions and sensibilities, or her expansive regard for the world at large, if her ovaries had become atrophied. Love and all its associations would be for an eunuch what song and orchestral accompaniments are to a deaf-mute—things unfelt and unappreciable except by analogies.
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> "I would not seize an occasion in common psychology to throw a shade over young romance or to abate the fervor of enthusiasm; the period for the indulgence of either is too short and too quickly curtailed by the stern realities of life. But, as physician and physiologist, it becomes my duty to impress on you the connection between our physical and moral nature, or rather, how much the latter is an educt of the former. Can there be, for example, a greater contrast in the disposition, feelings, and general frame of mind between a young girl suffering under chlorosis and uterine atony, and the same person a year afterwards, with rich blood coursing through her heart and vessels, and new vitality in her uterine organs?
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> "I do not now speak, although it properly relates to the present theme, of the effects on the mind of real or supposed impotence in an individual of the one sex or of sterility in one of the other. Often life receives an entirely different coloring from a belief, even though without adequate foundation, that there is inability to perpetuate the species. Some, from entertaining suspicions of themselves of this nature, have kept aloof from society, or looked on it at a distance with an eye of fear and suspicion, degenerating, after a while, into hate and positive malevolence towards their fellow beings, whom, under better auspices, it would have been their pleasure to render contented and happy."

The allusion of our author, in the above extract, to the "happy swain" and "the sweet shrinking and blushing Phyllis," is all very pretty and poetic, and we do not deny that the possession of such important organs as those required for reproduction, tends materially to increase their mutual *passion;* we do think, however, that individuals of different sexes may discourse "copiously and eloquently of the refinements of sentiment, the elevation and purity of thought," and possess "disinterestedness of feeling," even after the one shall have been emasculated, or the other had her ovaries become atrophied. One or two instances in support of this assertion have come under our own observation; and if our memory serves us rightly, even in the case alluded to by our author, the attachment of Abelard and Heloïse continued the same after as before the misfortune of the former.

After the introduction above quoted, there follows a lengthy article on *Urethritis*, most of it being appropriated to the specific variety of this disease, *Balanitis, Orchitis*, &c. Did our time admit of it, we should feel disposed to criticise and find fault with the views of our authors in regard to the nature, and especially the treatment of gonorrhœa; as it is, we can only express our decided disapprobation of the treatment by injections, which, we think, should be reserved for very rare and exceptional cases.

The second volume of the "lectures" opens with another subject which has been entirely revised, and to which numerous additions have been made, viz.: "Diseases of the Respiratory Apparatus." The following brief account of auscultation is prefixed to the first lecture:

> "Within the last quarter of a century the investigation of diseases of the organs contained in the thoracic cavity has been conducted on a much more certain basis than formerly; and some well ascertained physical laws are now applied to guide us to a diagnosis, the general accuracy of which is in most satisfactory contrast with the vague generalities before prevailing on this subject. The means for reaching these favorable results, or physical diagnosis, are by AUSCULTATION and PERCUSSION, terms of which the etymology, like most of those of a scientific character, convey a very imperfect notion of the range of subjects that they are actually intended to cover.
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> "Auscultation, literally the art of listening, now indicates a particular method of investigating the state of certain organs, by the different sounds given out when the ear is applied on or over them, or heard when the adjoining cutaneous surface is struck by the fingers or by instruments. To this latter mode of investigation the term *percussion* is applied. It enlightens us only on the physical states and changes of the organs, leaving to other modes of investigation the ascertaining of vital phenomena. But, as no physical change can take place in a living tissue or organ without a modification, at the same time, of its vitality, auscultatory results deduced from a comparison of the healthy and morbid states of an organ, become an evidence of pathological changes, and even of the successive steps of these changes—from the first slightest lesion to complete disorganization.
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> "Auscultation is applied primarily and mainly to the acquiring of a diagnosis of the diseases of the thoracic viscera, and also, but with less determinateness and zeal, of those of the abdominal viscera, pregnancy, fractures, injuries of the brain, and sometimes penetrating wounds of the chest and abdomen. In its application to the study of thoracic diseases it is termed pulmonary or cardiac, according as the sounds heard are elicited from the lungs or the heart.
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> "Laennec, the first to reduce scattered facts to a system, and who must really be regarded as the father of auscultation, based his observations on a well known principle in acoustics, viz.: that air, in passing through and impinging on tubes of various diameters with varying force, will give rise to particular sounds. He taught, and, with few exceptions, his contemporaries and successors have accredited the opinion, that the sounds heard in respiration, on applying the ear to the chest, are the results of the friction of the air against the walls or sides of the trachea, bronchia, and pulmonary vesicles, and, in the case of morbid changes, of dilated tubes and cavernous excavations. Modifications of these sounds will be caused by the interruption to the free passages of air through the canals by mucus or pus adherent to the sides, or detached and partly filling the cavities, or by bubbles of air engaged in mucus, &c. The distinctness and clearness as well as quality of the sounds conveyed to the ear, when it is directly applied to the chest or indirectly by a stethoscope, will vary with the nature and amount of the tissues and morbid products interposed between the pulmonary tubes internally and the skin externally. Hence, when the tissue of the lungs is more compact than usual, as in hepatization, or is infiltrated with fluid, or when fluid is contained in the pleural cavity, the sounds from the tubes will of course be different from those given out when the pulmonary tissues and its envelopes are in a normal condition. Some further modifications, as respects force and distinctness, may be expected from the greater or less thickness of the walls of the thorax, and the relative proportion of muscle and adeps between the ribs and skin; but they are of less moment than the obstructions to the conveyance of sound internal to the thoracic parietes.
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> "In the details of auscultation applied to the diagnosis of pulmonary diseases, I cannot be expected to engage in this place; and must refer you, if not already in possession of one or other of them, to the manuals on the subject by Dr. Gerhard and by Dr. Walshe, or to my Introductory Chapter to Dr. Stokes's Treatise on Diseases of the Chest, 2d Edition, recently published, and the excel-

> lent Lectures of Dr. Williams. You will find that I have indulged in some critical remarks on the want of harmony, as respects terminology and the meaning attached to the same terms, among some of the most esteemed writers on the subject of pulmonary auscultation. In the main, however, there is sufficient accordance of opinion among a large majority of these to entitle their statements to confidence, so far at least as to induce you to make your own observations, and thus to verify antecedent experience. The most that I can now attempt is to mention briefly the chief sounds elicited by the pulmonary apparatus. These are of four kinds. I. Those given out during the process of respiration. II. Those furnished by the voice in speaking. III. Those during coughing. IV. Those of an adventitious kind or friction sounds."

This first, and the following lecture (of Vol. II.), devoted exclusively to auscultation and percussion, contain an accurate summary of our knowledge on these subjects; and their perusal, particularly by country practitioners, who may not be supplied with works specially devoted to this subject, can but be attended with very beneficial results. We mean no offence by this remark to our brethren of the country, with whom we have long resided and practised, and for many of whom we entertain the highest esteem and regard; but when we have been laughed at, as has happened on more than one occasion in the country, for applying our ear to the chest in a case of pneumonia, or percussing a patient suffering with pleurisy, we should, in fairness, be allowed to recommend these lectures and similar treatises on the same subject, to those who may be deprived of the advantages afforded by large cities, for gaining practical information on one of the most interesting and useful improvements in modern science. We have only time, before concluding this very imperfect notice, to give one more extract, which contains the following *critique* on a passage from one of the principal works of the late editor of this journal, relating to the influence of climate in pulmonary diseases. We insert it as an evidence of the just and proper spirit by which the authors are actuated in noticing others, whose views do not accord with their own:—

> "Dr. Forry (*The Climate of the United States and its Endemic Influences*) has impugned the accuracy of the basis of the British Army Reports, on the ground that their authors have assumed England as the standard of comparison to test the relative salubrity of other countries in regard to pulmonary diseases, and have adopted a classification of climates based on mere latitude. As Englishmen, describing the mortality among English troops in English possessions, and drawing entirely from English documents, and addressing themselves to the English authorities and public, with reference to the probable benefit that might be derived by the inhabitants of England from their visiting the countries referred to in the tables, for the amelioration or cure of consumption, it is not easy to see what other standard of comparison could have been used with any advantage to the parties for and respecting whom the estimates were made, than the one which was actually adopted. In perusing the introductory remarks to the tabular returns, and the summary and deductions which follow, I do not find any attempt at systematic climatology, such as that attributed to them by Dr. Forry. The chief peculiarities of the climate of the Windward and Leeward Command in the West Indies are first described, and then those which are characteristic of each island are subsequently detailed. It was hardly necessary for Major Tulloch to speak of the mean temperatures of winter and of summer in addition to the mean of the whole year, when we learn from him that the difference between the highest and lowest mean range of the thermometer is, even in the most variable of the islands, only 13°, and in some it is not more than 4° throughout the year; whereas, he adds, in Britain it is in most years upwards of 30°. The only

notable division of seasons in the Windward and Leeward Islands, into two wet and two dry, and the large quantity of rain in the former, is that one which he mentions. Other peculiarities, such as prevailing winds, hurricanes, electrical phenomena, and limited range of the barometer, are also specified. Dr. Forry, in his strictures, says, 'Now, it has been demonstrated by the statistics of the United States Army, that in the climates in which the extremes of temperature are moderated, in which there is little difference between the mean temperature of winter and summer, pulmonary diseases as a class exhibit a low ratio.' The reply to this is, that in the West Indies generally in which these climatic conditions are fulfilled, pulmonary diseases as a class exhibit a *high* ratio; and, in reference to pulmonary consumption, it may be added, that where the very opposite of the favorable conditions specified by Dr. Forry, exist, viz.: in high northern latitudes, and extreme systems of winter and summer climates, this disease is comparatively infrequent.

"The strictures of Dr. Forry on the error of comparing the highest average in one command with the lowest in another, and in the oversight of bad habits and bad morals operating on the British soldier, as well as the progressively deteriorating influence of prolonged high heat, have a better foundation than the preceding ones. But an invalid visiting any of the West India Islands, and spending a winter or its equivalent season there, need not be subjected to any of these influences. As relates to the Mediterranean climates, the remarks of Dr. Forry must not be overlooked, on the necessity of separating, in our inquiry, the two systems of summer and of winter climate, by the latter of which an invalid from the north with chronic pulmonary disease may be benefited, while by the former he will be most probably injured."

We cordially recommend such of our readers as have not yet supplied themselves, to procure a copy of the present edition of these lectures, for we feel confident that they will never regret the time as lost, that they may devote to their perusal. The work is gotten up in the usually neat and appropriate style of the enterprising publishers, and printed on good paper and with clear type.

F. C. S.

Art. XXII.—*Introductory Lecture to a Course of Chemistry*, delivered by Professor Draper, on the relations of Atmospheric air to Animals and Plants. pp. 16. New York: 1844–5.

We have derived much pleasure from the perusal of this interesting lecture, and are sorry that we have not time to award to it such a notice as it merits. We regret this the less, however, inasmuch as we have already devoted considerable space in the present number, to a review of Dr. Draper's large work on the *Chemistry of Plants*. It is to be remarked that all the productions of this author bear evidence of his accomplishments as a scholar, and ability as a writer.

F. C. S.

Art. XXIII.—*Philosophy of Animated Existence; or Sketches of Living Physics; with discussions of Physiology Philosophical.* To which is added, *a Brief Account of the Middle Regions of Georgia.* By John B. Gorman, M.D. pp. 570. Philadelphia: 1845.

This is a *unique* work, and one of so *profound* a nature that we question our ability to do it justice; it is before the public, however, and we must attempt to give our readers an insight into its character and nature; to do this we shall have to extract from its pages to some considerable extent.

The first chapter of Book 1st, opens thus:—

"*General Phenomena of Animated Existence.*—All created beings continue to be what they are—exist—by virtue of the acts they constantly put forth. These acts distributed out, impressed at the hour of creation, are special to each. Thus a star, a man, a microscopic animalcule;—the towering cedar, the humble cryptogame—are subjected to the same condition. There are no royal houses in nature, where beings repose, or enjoy repose after labor. They all participate in the ceaseless struggle; persevere in continual excitement. This excitement is the essence of their being. In it they all, in their own way, enjoy life from the hands of their living Creator; live the great, the beautiful life of nature.

"But it is not the phenomena of this universal life, only an infinitely small portion, and a particular mode of it, we are here to contemplate. In this particular mode, we find the rank and place we, with our fellows, occupy. We live amid the scene of the mineral changes and revolutions of the matter of our planet. We cannot but perceive our existence is connected closely with the causes of these changes. The slightest observation of the general phenomena of matter, very moderate inspection of the physical laws, are sufficient to convince us, the star in space on which we dwell does not contain all, but only a limited portion of the conditions or means absolutely necessary to our existence. Its intercourse, associations with its fellow-stars;—the life it enjoys itself—completes these means.

"Our sort of animation parasitic, is, therefore, only a special form engrafted on the older life of nature. It is the modification of this life by a substantive force, the force of organization. This life by giving matter forms foreign to the natural tendencies; endowing them with separate and special properties; combining them into reciprocally active wholes;—or this life by organization, differs exactly from the great, parent model. The force of the one progresses without exhaustion in eternal equilibrium; that of the other is never exactly the same in intensity and operation. Against this latter force, frail and delicate, the matter subjected to its dominion for ever tends to rebel and escape. Commencing feeble at first, it has its limits fixed in all living species, beyond which it cannot pass. Thus generation and death come to form part in its economy.

"One of the most notable conditions, therefore, in all animated existences, is, to use the sacred expression, that they come from the dust and return. In this double movement, all vitality keeps pace with the flight of the celestial spheres,—plays through time. In this flight are maintained the eternal youth and beauty of the living forms, personified by antiquity in the person of Hebe, daughter of the most ancient of beings.

"Nature seems to manifest no cares for the preservation of her fair creations of life. She constantly prepares for us, frightful, hated deaths. She flatters with beauty and strength, but she will not hear our cries, entreaties; does not pity the hideous features, the wrinkled face, the stiffened form, she is preparing for us;—the solitude of the cold sepulchre. She procures death for all; to us the most frightful, because formed the most sensible.

"Her great pleasure, her constant disposition, is, to return, and tread again in her own footsteps; create existence, rekindle the breath after the same models she has destroyed. In the successive evolution and extinction of generations, she limits herself to the repetition of the same unvarying series of efforts; passes round in the eternal circle of action. And the voice of her august Creator rings for ever throughout her living empire, 'From dust thou art, and unto dust thou shalt return.'

"But what is this dust! mighty, immovable base of all animated beings, round whose great axis they all turn! This dust?—but the earth herself; over whose sterile face passed anciently the breath of the Almighty. Then the grass first shot up its juicy spires; the little flowers opened their tender petals to catch the roscid drops; and the tall trees spread out their voluminous foliage beneath the clouds:—the plumy races began to flutter in the air; the young leviathan play in the waves;—the great zoological life came forth:—and man appeared among them their crowned sovereign.

"The dust, then, which we bring with us into life, which we sacredly deposit in the tomb afterwards, enjoyed, at first, only the simple life, the life of all matter. But since generations began in all the living races, the dust of the earth has lived a new life from the Divine Breath or the organizing nature, which has continued."

At page 31, we find the subject of *Spontaneous Generation* thus disposed of as an idle question:

"*Spontaneous Generation.*—Since all life at first was by divine creation and institution; and organization—the universal mode—is foreign to the achievement of the material properties; since, consequently, all life subsequent to the first pairs, has been transmitted by parents, or in the words of the illustrious Harvey, '*Ex ovo omnia,*' *spontaneous* or *equivocal* generation is an idle question.

Diodorus Siculus and other old writers mention, that the ancient philosophers of Egypt, India,—maintained, all vitality sprung originally from heat and moisture. But these philosophers lived in the infancy of learning, when experience had only begun to lisp the first simple lessons from truth. Some sages still teach that animalcular vitality is spontaneous. But all life with them, for the most part, is only the simple combination of forces, movements:—the evolution of some occult, material properties. Their conception is extremely vague and indefinite."

The ideas of the author on *Vital Economy*, and his *Theory of Life*, are thus given:

"*The Vital Economy.*—How infinite, incomprehensible is life! In the animalculæ and confervæ of its descending scale, it passes below our vision; in the elephant, the mountain oak, we behold the opposite extremes. The microscopics live in the roscid drop, and play in its vasty billows; the whale, in size, matches the ocean where he swims.

"Contemplated in relation to time, it equally surpasses our comprehension, and mocks the ambitious flight of our science. In its ruins, it appears to have formed largely the earth's solid crust. The vestiges of its ancient forms preserved in this crust, as we have seen, show that all its early models have become obsolete; long since ceased to constitute any part in its economy; that it progresses through a perpetual metamorphosis of these forms. Mystery, darkness hang round on every side.

"*Idea—Theory—of Life.*—The most general conception of all animation, is that of a special *modification* of the great *action* of the solar economy. This modification is achieved by organization; organization, by a special, created substantive force, which varies in every individual genus of the great living series; but accomplishes, more or less perfectly, the same end in all. Organization, therefore, is the *only mode* of vital manifestation for the whole economy. It is both the *immediate measurer* and *modifier* of all vitality.

"The earth *original,* presents three great divisions, or three great chambers, to lodge all the living families—the atmosphere, land and sea. To each of these there are many properties, qualities—things peculiar.

"1. The direction, tendency impressed on the organizing force; or first law of organization is, to furnish, evolve structures to meet, accommodate these peculiarities of the inhabitable chambers.

"If it be the sea; the osseous system, if it exist in the creature contemplated, the muscular, nervous, all the organic apparatuses, will have a make and conformation in relation to the physical properties, qualities, &c., of water; and be more or less peculiar. There will be branchiæ, fins.—If it be the land; all the types of the organs will vary, new ones be added, and present to surrounding objects, new relations, new points of contact, new modes of intercourse. Instead of branchiæ there will be lungs; feet to support the body.—If the creature be destined to fly in the atmosphere, the whole organism will present peculiar relations, adaptations to this element. Instead of fins there will be wings, in place of scales, feathers.—There are some privileged creatures of mixed structures, the amphibia.

"By the operation of this first law, each member of the organic kingdom has its nativity or proper inhabiting element assigned to it—its being defined, circumscribed, located; so that the individual structures or parts of each, as I have had occasion before to observe, will bear testimony respectively;—or are *consignificative* of the material habitudes of the natural places of their existence. If you interrogate them, they will point to the atmosphere, land or sea.

"2. Another law or tendency of the organic force is to fabricate structures in animated existences, in relation to one another. These relations are those of offence, defence, sexes;—subserve in part individual conservation, and that of the species.

"3. This force evolves organs, strictly likewise, in relation to the *alimentaria.*

"4. It elaborates special structures in relation to some particular forms of the terrestrial matter only;—as the subdermic, nervous tissue, the immediate seat of all the senses with their auxiliary apparatuses, except the eye, in relation to the imponderable agents or the immediate cause of touch, to odors, atmospheric undulations.

"5. The organic force unfolds organs in living bodies, in relation to other worlds, as the eye. The medullary structure of both plants and animals is the immediate seat of innumerable stimulations from solar light and heat. And all living bodies respond to the energy, which causes the planetary movements.

"The first class of organs, which accommodate, fit the living being to the inhabiting chamber or natural abode, are always connected with a general conformation of the entire structure. Or rather, it is these specific organs with this general conformation that constitute the *naturalness* or the nativities, which necessitate and give origin to innumerable varieties in the living contours:—as an acuminated form to plow the waves, branchiæ, air-bladders, in fishes; skin, hair, feathers, in other creatures, to modify temperature, mechanical contact of external bodies,—feet, hands, lungs, wings.

"The organs of the second class relate to the economy itself, and unite its different members.

"Those of the third look externally. Food modifies also prodigiously the living forms;—as the mouth, teeth, assimilating organs, nostrils, neck, feet, cartilaginous nose of the domestic hog; distensible skin of the rhinoceros; proboscis: *ligamentum nuchæ* of the *ruminantia*, &c.

"The structures of the fourth and fifth classes modify principally the action of the universal forces of nature; and connect all living existences closely with the great solar movement. Every separate structure, therefore, of any animated being, combines in its action, either to modify the chemical habitudes of matter, or its general forces; and thereby achieves a definite and useful end in its own economy.

"According to this view of the last elements to which we can reduce vitality, all living tissues can only have sense and meaning in the different substances, habitudes or states of the terrestrial matter and those of its system. Each member of the animated series, through its numerous organs, receives the varied impressions the forces of this system are calculated to excite, and lives,—lives in the great dynamical movement of the whole.

"A frozen sun, planets without motion in space, and life progress with all its busy forces—sensations, wants, volition, locomotion;—would not only be unphysical, contradictory, but the *membra disjecta* of things. Were there no sun shedding his warm, radiant beams; no atmosphere, water, flowers, fruits exhaling sweet odors,—to what end in the universe would look, tend the eyes, ears, noses; different, special organs, with which nature has fitted up the living races? They would be alone by themselves,—useless—unmeaning—a burlesque to the balance of things. But so far to the contrary of this, she appears to have copied all the beautiful forms of her lives from the earth, and the stars, that burn in space.

"The more scientific organology advances, the more numerous, we may suspect, will appear those *vivo-material* correlations. Should science ever reach perfection, each member of the great living family, to some extent, or in some sort, will be regarded as a *syllabus* of the vast system, body forms in space; and afford another demonstration of the universal unity, harmony of all created natures.

"We may be confirmed in the general truth of these elementary views of animality, from the fact that it is only through the *organization* of the *solar matter* radiating in space, and *that* of the *earth alive* in its own system, *there is life*. And we may suppose if a portion of matter foreign and distinct from this system, were organized into one of our plants or animals, and placed on our planet or some other, it could not live or exist a moment, because it would not enjoy the general animating forces. The special laws, energies, therefore, which preside over the formation and conservation of organic bodies, exist in close union in nature, with those, which impel to, and maintain the great solar action."

We are much tempted to extract from this truly *singular* book, the whole of Chapter VII., which is devoted to "Intellectual Mechanics," and in which will be found some odd ideas, and much that is *original* with the author; we must content ourselves, however, with giving his second and third examples, to illustrate the *Mechanism of the Sentiment of Conservative Love:*

"Man, before woman, existed in the earth. Most of the legends of early people, who preserved the recollections of the first events of the world, contain pitiful stories of his sufferings, and the life he led. 'A prey to perpetual solitude, dejected and sorrowful, he wandered from place to place inconsolable. He loved and wept, loved tenderly, and yet there existed no visible object of his affection. In his dreams only he saw the image of what he loved; but on waking it would vanish from him. He abandoned himself to ceaseless regrets, and refused all nourishment; until worn down by his sufferings and hardships, he invoked death at the hands of the supreme Numen.'

"Primeval woman sprung from the heart of man, to which she tends. She was seen, felt, realized there before her birth; or, in the pre-established order of the world, she became a being distinct from him. But it was in the dark shade of embowering trees, where fell the noise of broken waters; amid the frolic of birds and flowers, man first met his companion, and erected his bridal altar. And it is still amid these sweet bright scenes, he is most apt to love. It was in the retreats of wave-sung, blooming Enna, the daughter of Ceres was loved.

"In her he felt a new sensation, the sensation of beauty. The consecutive movement falls, and is expended on the organs subjected to the nervous system of nutritive life. It touches the living *wheel-work* at many tender points; but its greatest force is lavished on the tissues consecrated immediately to the maintenance of the race.

"At first he saw her only through his mind: he now beholds her through his organization. The light of a higher, brighter world hastens to fall upon her. 'Her bosom is the heaving snow;' 'she is born of the white foam of the waves.' He has been touched by beauty; he lifts his eye to fairer climes than the earth, for the origin of this new force he has felt. He is humiliated in her presence. His bosom is filled with admiration and homage; she lives in his thought. By an irresistible impulse he is precipitated into her presence; and worships in her an order of excellence* higher than himself.

"Thus man adoring is permitted to imitate† the acts of his divine Creator, in the reproduction of a being like himself. Thus nature allures him to live out of his tomb after he is dead; and fling his life to pass on the great torrent of ages.

"The gods of antiquity mostly sprang from mortal women. Animated, overpowered by this sense of beauty, men were led to suppose they had given origin to an immortal race. We know not yet this beauty in its essence and locality, of which woman alone can plant in our bosom the sentiment. It must appertain to the highest order of excellence—an attribute of the Divinity—by which He perpetuates a race, the individuals of which He has doomed to perish.

"Many philosophers have satisfied themselves that they have propounded the origin of the sentiment of beauty. But a meditated examination of their labors must fail of conviction. Count Buffon, who regarded man and woman as forming but one being in the hands of nature, struck with the mysteriousness, created for its perception a sixth sense. His genius permitted him to see nature with new eyes, but this *peculiar sense* is as obscure as the thing it was intended to explain.

"Abelard, Tasso, Petrarch,—loved till the end of their days those who first inspired them with this sense of beauty; and loved them only. Is the object of nature—the end of beauty—to annihilate the personal identity of two individuals of different sex, and secure their solitary union for life? The facts librate for and against it. Our sacred books make it a duty. Plato,‡ Miss Mary Wollstonecraft,§ M. Virey,‖ admit there is a polygamy of nature.

"EXAMPLE III.—*The object is an amiable female in distress.*—She has just been shipwrecked in her affections—the three-fourths of the being of her sex. The ebon hues of her pendent veil, the deep black drapery of her sorrow, give a hallowed and unearthly aspect to the faded snow of life. Her dress answers to the dark clouds which hang on her futurity, and to the complexion of her soul, which, forced out of life, has taken refuge in the tomb. Her figure a little inclined forward, her march is slow and steady. It is 'the narrow house' covered by the shade of some elms and branching oaks; when twilight is stealing abroad, she approaches alone. Her gait grows unsteady—she totters—advances—stops—advances again. Deep irrepressible sighs murmur up from her broken heart; respiration grows convulsive; she falls in incipient death near the holy spot. As on the grass the dew-drops gather on her locks to trace now the cold paths of her exhausted tears; and her soul visits, for a time, the dear, dreamy land whence her love is gone.

"The brain perceiving such an object, will transmit the secondary or consecutive movement to the organs under the same nervous dependence as in the two last examples. But this movement will fall with the heaviest weight on very different tissues; those of the thorax and abdomen will constitute essentially the operative theatre. We know this only as an irreducible fact of our nature, understood by those even who lived early enough to frame language—by all antiquity—and maintained by a host of modern philosophers.

"If the active theatre of the three movements be different, the phenomena are different. The normal excitement, in the first case, where the object was nutritive, in all its tendencies, is to the conservation of individual life; in the second, to that of the life of the species; but in this third, it is directly to its destruction.

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* Paracelsus—Pope—have left monuments of their hatred to women. They could not behold them through this nervous mirror of nutritive life, *abnormal, untrue* in them to nature.

† If, according to the Orphic verses, *love* or the *beauty of the divine ideas*, which struck Plato, was the first principle of all things, it is love, we see, in mortal bosoms, which still originates fresh life, is the prime mover—great main-spring of ages.

‡ Republic.

§ Vindication of the Rights of Woman.

‖ Histoire Naturelle du Genre Humain; et Dic. des Scien. Méd. art. *Poligamie.*

The phenomena of the two first are purely physiological; of the third, essentially pathological.

"We know the nervous tissue, in its various forms, is the starting point of all living actions, and the agent which sustains and combines them in the different apparatuses of the economy. That the *nervous power,* illy definable, is the universal stimulus to the excitability of all the voluntary muscles—and that in the senses, and all the nerves of relation, it is itself which is excited. It is, therefore, both the *excitans* and *excitatum.* The share of action, and the reciprocal influence of the different members of the nervous system, as in the actions of the heart, arteries, capillaries, &c., since the days of Gorter, Haller, Whyt, till Dr. M. Hall, and the vivisectionists of our day, have continued to excite the profoundest interest and research. The recent labors of Bell, Lobstein,—have achieved something to advance our knowledge in psychologic neurology. But the heaviest shades still hang between our intellectual and pathetic natures, and obstruct the view.

"By the one part of this system, we hold communion with the world, and live out of ourselves; by the other, the relations and influences of its various objects are peculiarly impressed upon us. It is through the triform ganglionic portion of this system, that the seal of our humanity is stamped upon us. It is through it alone we feel the ardor of religious devotion, pleasure, sorrow. But for it, it never could have been said,

Non ignara mali miseris succurrere disco;

nor as the early poets sung, had Niobe been converted into a stone through sorrow, for the loss of her children.

"Mankind have honored, done homage to the inspirations of this ganglionic sense; and those, who have disobeyed, been held as monsters. Cabanis the first gave to it the most beautiful development.* It is by its charming light we behold the interesting, lovely object now before us—dilapidated—fallen in ruin untimely amid the rosy hours of her reasonable hopes. Her innocent heart was filled with the tender images of love; her futurity was full of flowers. They have suddenly been torn from her. Is there a tear, this movement of which I speak will find it; a cup in us to hold sorrow, it will fill it.

"The reflected action of the encephalon, I have said, will fall on the thoracic and abdominal organs or *phrenic centre.* Hence the venerable expressions, '*bowels of mercy—compassion.*' From this centre, with different degrees of force, it radiates to affect the other parts of the organism. The two parts of the nervous system communicate at different points. Prochaska sustained, that the passions act on the heart through the eighth pair of nerves. But the manner of achievement of the law, which co-ordinates the brain perceiving, and the phrenic centre into one action, must be conjectural, since the light does not shine so far. It is not improbable, the brain's reflected movement reaches the instrument of the ganglionic sense, at more points than one. If, therefore, the brain must be affected for the mind's perception of an external object, the ganglionic nerves must likewise be affected for its perception in the light of the passions. The passions or mental phenomena of the ganglionic sense, accordingly, are more complicated than those of the external senses. If a man could subsist without this internal nervous system, all external objects were to him alike. He could neither know joy nor sorrow, love nor hatred, more than one born blind does colors. For it is through this second sense alone, the mind feels the qualities of the objects.

"But if this movement, reflected to the phrenic centre, produces the passions, the reaction of this centre on the brain, gives birth to all the delicious images, touching beautiful ideas of poetry, eloquence. Bauvenargues is right; 'our great thoughts come from the heart.' To augment the intensity, animate this phrenic reaction, Apollo came forth with his lyre; the fountain of Pindus flowed; the waters of Helicon broke forth from the Bœtian mount; the Muses were born on the *serene top* of Pierus; loved to walk in the Olympic blue; to wander through solitudes over woodlands, and Idalian groves, that they might catch what was soft and moving in nature, and fire mortal bosoms with the harmony of numbers.

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* Rapports du phys. et mor. de l'homme.

"It is from this phrenic reaction, then, flows the deep fountain of all our moral nature. It is through it immediately, we feel pity; our tears flow at the sight of flowing tears;—that we participate in all the feelings of the dear, mournful object, we have here selected for an example.—She advances slowly; we feel inclined to the same movement. Great debility marks each footstep; the same debility seizes upon us. She swoons near the grave of her lost spouse; our respiration grows impeded.

"The phrenic reaction expanding, reaches the nerves presiding over the nutrition of the eyes and complementary organs. It excites the supplying arteries; the blood flows in increased quantity; the eyes redden; the stimulated lachrymal glands pour out the tears. In the same manner the blood is accumulated in the head, the thoracic and abdominal viscera. The brain throbs; weight or pressure more or less great is felt in the epigastric region, arising, probably, from capillary stasis, and the peculiar sense of trisplanchnic nerves. From their weakened or unduly stimulated nerves, the intercostal muscles take on convulsive movements; the diaphragm heaves; respiration tends to impracticable. The heart participates livelily in the great sphere of this disturbed ganglionic excitement; vibrates and impels the blood irregularly and with difficulty.

"General Phenomena.—The skin has grown cooler; there is more or less chill; the general circulation has become slower. The voluntary muscles are weakened; the supply of nervous power has diminished. The appetite for food is lost; the function of nutrition has given way. The mind is more or less insensible to surrounding objects, is absorbed in one subject; the psychological functions are abnormal. The hands and feet are cold, but the head, eyes, hot; the *epigastrium* heavy and laboring, the thorax heaving, and the heart palpitating: there is derivation of the organic functions, showing where the blood and nervous energies are gone in excess. It is the brain, and the organs subjected to trisplanchnic animation, but especially those of the *epigastrium* and thorax, where the greatest intensity* of the action is going on, and sustained there by an accumulation of life's prime movers.

"Thus the encephalon affected for the perception of a *single object*, reverberates the perceptive movement to the nutritive nerves; they radiate it through the organs over which they preside; the two portions of the nervous system respond energetically to each other. A storm rises in the living functions. How rapidly does it turn some pieces of our mortal machinery, how slowly others!"

In concluding our notice of this work, which has been by extracts extended to a greater length than we had purposed, and to which we have given more space than its merits would appear to demand; we must be allowed to express our surprise at its having ever been published. It is either entirely wanting in all the attributes requisite for a valuable book; or, as we have already remarked, it is of so very profound a nature, that we admit our inability to appreciate its merits. In the words of a friend, who was kind enough to glance over its contents for us, " It penetrates depths, and soars to heights, to which we do not aspire ; and, therefore, we feel disqualified, in a measure, from expressing any opinion as to its merits."

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* No wonder Lacaze, Bordeu, Bichat,—located the seat of the affections in the *epigastric*, more properly, *phrenic* centre, which many sages have regarded as "the immediate habitation of the soul." So conspicuously, sensibly is this centre affected, in all the pathetic movements, that all antiquity, as I have said, was full of this idea. The divine philosophers made it synonymous with the understanding. "The heart," says Job, "conceiveth mischief."

The error of the physiology of Bichat and those like him is, that they made the *acts* of this centre, the *passions* themselves, as they did *those* of the brain, the immediate *mental phenomena*, both being efforts purely of the material organization. They left out the mind.

We, however, recommend our readers to procure a copy, and we promise that its perusal will contribute to their amusement, if not to their information.

The appended portion, or " medical account of the Middle Regions of Georgia," we have forborne to notice, at present, hoping that we may be able, on a future occasion, to cull from it some valuable facts in relation to the Medical Geography of, and the diseases peculiar to, the State of Georgia. F. C. S.

PART THIRD.

1.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

1. *Case of Malformation of the Genitals, in which a child, two months old, christened, and always considered as a female, proved to be a boy.*—The following case is communicated by HENRY TERRY, Esq., F.R.C.S., to the Editor of the *Provincial Medical and Surgical Journal.*—Lois Brown, of Mears Ashby, Northamptonshire, aged two months, was brought to the Northampton General Infirmary on the 9th of March, 1843, on account of a malformation in the organs of generation. The mother and grandmother, who came with the child, said that the external opening was closed, and the water came the wrong way, and that she was born so. On my first examination, it appeared to be a common case of imperforate vagina. There was, however, a little fulness, and a slight degree of prominence at the lower part of the supposed closed orifice, and this was the only peculiar circumstance which I observed. On proceeding to separate the adhesion, which required no cutting, and very little force, my utmost surprise was excited by the appearances which were presented to view. There was something which looked like a penis, and I immediately fancied that my patient was a case of hermaphroditism. I separated the parts more extensively, and more minutely examined those which had been concealed; a glans penis and prepuce were now discernible, and the penis was complete, though a good deal confined and bound down to the neighboring parts. The vagina was searched for, but in vain. The scrotum, with one testicle down, and the other descending, was gradually developed, and the little patient was presented as an entire male child. There was a slight indentation at the orifice of the urethra, but the canal was impervious, and the urine passed through a little opening behind the corona glandis, just at the insertion of the frœnum preputii. There was a large quantity of loose cellular substance covered by integument in the neighborhood of the parts, so that even after the separation of all the adhesion, the slightest lateral pressure with the fingers gave again the appearance of a closed vagina, covering and entirely hiding the penis and scrotum as before.

I am at a loss to give any satisfactory explanation of the appearances which I have attempted to describe. It only appeared to me that from an exuberant quantity of surrounding soft parts, together with a retracted and rather confined condition of the penis, the two sides of the former had met, and formed an adhesion, but this had evidently happened before the birth of the child, as no doubt had ever been entertained as to the supposed fact of its being a little girl.

I visited the child the next day at Mears Ashby, and found him quite well, but the mother was in tears and great trouble, as she said she should be laughed at and ridiculed by all the village for not knowing a boy from a girl. I endeavored to satisfy her on this subject by assuring her that her ignorance on this point was not greater than my own, and I offered to give her a statement of the facts of the case for the clergyman of the parish. The child has been frequently at the Infirmary since: the urethra is still impervious. I have made many attempts to introduce even the finest probe, but have not got it in further than a quarter of an inch. The urine passes through the false passage without inconvenience. The penis is still rather confined, and the same state of the surrounding parts remains;

by very slight lateral pressure the almost perfect appearance of the female organs is again produced.

During the present tender age of the child it would doubtless be wrong to do anything more respecting the urethra, but it will be eventually important to decide whether anything can be done. I believe that the urethra is not carried through the glans, but terminates in the false opening behind that body, constituting the disease called hypospadias; and I fear that such a case admits of no remedy.

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2. *Lusus Naturæ.* Case communicated by Dr. Danyeau to the *Société de Chirurgie.*—A woman, æt. 18, presented the following congenital deformity: nose divided into two parts, each having all the appearances of the natural organ, with the exception of one nostril instead of two; at the upper part of the interval which separated them, there was formerly a third eye, which had been removed by a quack, and, in its stead, an irregular, solid, osseous swelling exists, on which the lids, with their lashes adherent to each other, are perceived. The upper lip, divided in half its extent, was formerly raised by an osseous prolongation which supported six teeth; its most prominent part had been removed with the four teeth fixed to it; the remaining are hid by the lip. These teeth are evidently supplementary, for sixteen teeth exist in the upper jaw, but the four incisors and two caninæ, instead of being in juxtaposition, form a triangle whose summit is directed downwards. The velum palati and neighboring parts presented nothing abnormal; the roof of the mouth is divided anteriorly, in which separation is contained the additional portion of bone, a small furrow indicating the spot in which the two are united. The lower jaw has the usual number of teeth, but the incisors and caninæ are directed in an opposite way to the superior. Sight and smell normal, the former somewhat hindered by the swelling that exists instead of the eye; but, before this last was extirpated, it was perfect. —*Paris Correspondence of the London Medical Times.*

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3. *Double Vagina.* Case communicated by E. Combes, M. D., to the *Société de Medecine de Toulouse.*—N—, æt. 26, strong and healthy, of a lymphatico-sanguineous temperament, menstruated at fifteen, and was pregnant for the first time in May, 1843. Dr. C. being called in, on the 8th December, found, on examination, that the genital organs presented the following peculiarities: labia majora very little developed; nymphæ very large; os externum surrounded by soft flaccid tissues, of a bluish tint; vagina single anteriorly, to the extent of 1½ inch, after which it was divided by a membrane attached to the urethra and the vesico-vaginal septum, and extending downwards as low as the fossa navicularis, so as to form anteriorly a sort of crescent; at the upper extremity of the two canals thus formed, two cervices uteri seemed to exist, which led to the supposition that the internal organs, or, at least, the uterus, were double, a conclusion which a subsequent examination proved to be erroneous. Labor pains came on the 13th January, 1844; both vaginæ were lubricated with a viscous liquid: the two necks appeared to be united, presenting a dilatation from 2¾ to 3 inches in diameter; child's head in the right occipito-cotyloïdian position; pains feeble. Nothing indicated a speedy accouchement, and Dr. C., fearful of the consequences, left the patient for a moment to seek the aid of a colleague; but, whilst absent, the pains became intense, succeeding each other with rapidity, and during one of them, the patient felt something give way, and the child was born immediately afterwards. The after-birth came away spontaneously, and no consecutive accident occurred. Three weeks after, when examined by the touch, and with the speculum, the disposition of the parts was found as follows: inferior two-thirds of the vagina in its normal condition; upper third divided into two parts by a thick septum, covered by the mucous membrane on both sides, and directed from above downwards, and somewhat obliquely from right to left; adherent superiorly, and ending inferiorly in a crescent-like edge; the left division, through which the fœtus had escaped, was larger than the right; at the upper extremity of the former was the cervix uteri, still open; the latter ended in a *cul-de-sac,* and in it was an elevation somewhat similar to a cervix.—*Ibid.*

4. *Pulsation of the veins.*—M. Martin Salon has observed this phenomenon in two cases. The patients were affected with acute pneumonia that had been treated by copious blood-letting and Tartras antimoniæ. Near the fifteenth day of the disease, the dorsal veins of each hand were observed to pulsate. They were transparent, of a rose color, slightly bluish, and presented a movement of diastole and systole, quite as sensible to the touch and sight as is that of the radial artery when it is superficial. This movement was perfectly synchronous with the pulse; it ceased when the veins were compressed near the fingers, but persisted when pressure was made at the wrist. In the first case, the veins diminished in volume, but augmented in the second; compression of the brachial artery caused the pulsation of the radial and cubital arteries and dorsal veins of the hand to disappear. The most careful examination convinced M. Martin Salon that this pulsatile movement was not communicated to the veins by subjacent arteries, nor by agitation of the tendons. The beatings of the heart were found to be slightly increased in intensity, and there was a slight blowing sound. This pulsation of the veins continued for seven days.—*L'Abeille Médicale.*

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5. *Facts relating to the Period at which Menstruation ceases in Woman, and the effects thereby produced on the Health.* By MM. De Muynck and Kluyskens.—It is a fact that much more attention has been directed to the period at which the catamenia appear, than to that at which they cease; one cause of which, probably, may be the greater number of females subject to the former of these phenomena, and their tender age, and the little importance, in the majority of cases, attached to the latter. Too little attention, indeed, has probably been given to the cessation of the catamenia, and many states have been attributed to a morbid condition of the uterus, which were in reality nothing more than a prolongation of the normal state, and vice versâ. The following facts may, perhaps, throw light on the subject.

Return of the menses at an advanced age, cure of some obstinate affections.

Case 1. A nun, aged 62, of a sanguineous constitution, was seized with obstinate gastralgia, after the cessation of the menses at the age of 52. For nine years she was treated by many different medical men without relief. The following are the symptoms from which she suffered when I saw her. Palpitation, with pain at the epigastrium two or three hours after taking food; digestion slow and difficult; fetid eructations, constipation, no appetite, tongue clean, urine watery, pulse natural, character irritable, sleep good. Light tonic regimen, occasional application of leeches to the anus, keeping up the spirits (moral) of the patient. In the course of a short time her sufferings were alleviated, the constipation was less obstinate, and she experienced a feeling of comfort unknown for many years. The melioration continued up to the period when a sanguineous evacuation took place from the uterus; it lasted four days, was unaccompanied with any pain or any functional disturbance whatever, but there was considerable amendment in all the gastralgic phenomena. Another discharge occurred twenty-eight days after the first, and from that period the menses have recurred with their normal regularity, and now, though the lady is aged 73, they return with as great regularity as they did when she was at the age of 20. Since this re-appearance of the menses, not only have all the gastric symptoms disappeared, but she has continued to enjoy the most perfect health.

Case 2. A nun, aged 90, had menstruated regularly from the age of 15 to 52; at this latter period she was seized with violent colic, which continued to recur at intervals for the space of two years. To this succeeded tic douloureux in well marked paroxysms; it resisted a variety of remedies, and ceased only at the age of 60, at which period the menses re-appeared without pain, and they have recurred regularly since every month; she enjoys excellent health, and is in full possession of all her faculties, moral and intellectual; she exhibits besides, tastes and ideas which are generally confined to youth.

Examples of menstruation continuing to an advanced age, are not uncommon.

Many authors mention females who have given birth to healthy children, at the advanced age of 67 and 70 (?) The two cases cited above are opposed to the opinion commonly entertained, that prolonged menstruation is generally met with in females addicted to sexual pleasures. The subjects of the two preceding cases were devoted to celibacy, and led a rigid and austere life.

Supplementary hemorrhage from the mamma at an advanced age, alternating with paroxysms of asthma, and terminating in cancer of the breast.

Case 3. M., of a sanguineous constitution, has had three children, and for 40 years enjoyed excellent health. At that age the menses becoming less abundant, she began to experience wandering pains in both extremities, with a feeling of oppression and fatigue. This state continued two years without exciting attention. At the end of that period, however, the symptoms increased, and she was seized with occasional attacks of asthma, which usually preceded the appearance of the menses; at each return of these the left breast became swollen, with an intolerable feeling of itchiness around the nipple; the other breast remained perfectly healthy; the swelling of the breast sensibly increased; the veins became prominent, and the nipple in a state of erythism, and surrounded with an areola of a violet red color.

The menses now became more and more scanty, and the attacks of asthma, more frequent and intense, resisted all the means employed. At this time a small quantity of pale blood flowed from the enlarged mamma, it escaped in drops, and might weigh 20 or 30 grs.; she was then 52, and the menses had entirely disappeared.

This slight hemorrhage completely relieved the asthmatic attacks, and the breast regained its natural size and color. From this period, a state of orgasm occurred periodically in the breast, similar to what is observed in the uterus previous to the appearance of the menses. The discharge of blood followed, and when this was scanty, the attacks of asthma recurred with great intensity.

She lived for five years and a half with this singular menstrual flux, but at that period a scirrhous tumor appeared in the breast, which soon passed into the state of cancer, under which she sank, and died at the age of 58.—*Gazette Médicale*, from *Lond. and Ed. Monthly Journal of Med. Science.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

6. *Syphilitic Neuralgia.*—A man who had greatly suffered for eleven years from facial neuralgia, presented himself at the Clinique of M. Velpeau. He had been treated with moxas, setons and blisters in great numbers. All the teeth in the upper jaw of the side affected had been extracted, one of the branches of the trifacial had been cut, and he had taken great quantities of Meglin's pills. M. Velpeau having found out that the patient had had syphilis, prescribed the protoiodide of mercury, which effected a perfect and undoubted cure.—*Gazette des Hôpitaux.*

7. *Syphilitic Chlorosis*, by M. Ricord.—In a great number of researches that M. Ricord has made upon the blood of persons affected with syphilis, he has constantly found the number of globules diminished in variable proportions. This state of the blood is what M. Ricord calls syphilitic chlorosis; and it has indeed many points of resemblance to other kinds of chlorosis. It is to this affection that we are to attribute the particular color that the skin of patients affected with constitutional syphilis presents; as in chlorosis, the physical and moral debility indicates a trouble of the circulation. The discolored skin, the inanimate expression of the eyes, shows the blood no longer possesses its normal qualities. Syphilitic chlorosis, generally, exists before any secondary or tertiary symptom

has declared itself. Its principal characters are, beside the general aspect that we have just mentioned, considerable prostration, with pains in the neighborhood of the articulations, having nocturnal exacerbations, unaccompanied, however, by swelling or change of color, and which are not augmented by pressure. Cephalalgia, neuralgia of the fifth pair, paralysis of the facial nerve, are common signs. Alopecia, engorgement of the posterior or lateral cervical ganglions and sometimes only the mastoid ganglions, complete this group of phenomena, which is rarely preceded or accompanied by febrile movement.

This particular state of the blood grows worse as the syphilitic infection gives place to secondary or tertiary symptoms. It may continue in different degrees after they disappear. The first conclusion to be drawn from these considerations is, that syphilis being an anemic disease, or, at least, always complicated with anemia, the antiphlogistic method of treatment is dangerous. The second conclusion is, the necessity of a nutritious diet. " The treatment that I adopt," says M. Ricord, " consists in the combination of ferruginous and mercurial preparations, if there exist no counter indications. When the secondary symptoms pass to tertiary, the mercurials, combined with iodide of iron, or with iodide of potassium, suffice to reconstitute the blood.—*Bulletin Genérale Therapeutique.*

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8. *Ileus; Intestinal Concretion.*—Mr. Reedal exhibited a portion of the colon, and also a concretion of feculent matter, taken from the body of a man who died after a few days' illness, suffering from symptoms of ileus. Many years ago he had taken, by mistake, an ounce of salt of tartar (carbonate of potash), which made him very ill for some time. Shortly afterwards he perceived a tumor in the left iliac region, which was treated for hernia, and for some time he wore a truss. On one occasion, having suffered from constipation, he was removed some distance in a cart, by the jolting of which it appeared as if something had been removed, as the bowels were freely opened.

On examination *post-mortem*, the ascending colon was found to be very much distended and thickened, and when opened, presented the appearance of inflammation, with ulceration of the mucous lining. In the caput cæcum was found the concretion, which weighed four ounces, and measured in circumference six inches. On a section being made, it was found to be composed of feculent matter, in concentric layers of a light brown color; externally it was dark, nearly approaching to black. The two preparations were presented to the museum of the Infirmary by Mr. Reedal.—*Proceedings of the Sheffield Med. Society;* from *Provincial Med. and Surg. Journal.*

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9. *Actual Cautery in Ulcerations and Engorgements of the Neck of the Uterus.*—At the suggestion of M. Jobert, one of the surgeons to the Hospital at St. Louis, M. Laurès has produced a work on this subject. The former has for many years occasionally substituted, with the most remarkable success, the red-hot iron, in place of the various caustics employed in the treatment of uterine affections. The latter renders a service to the profession by pointing out the rules to be observed in order, by similar means, to obtain similar results.

The cauterization is made by a rod of iron introduced through an *ivory* speculum, that substance being a bad conductor of heat. The iron should be heated to whiteness to prevent its adhering to the part it touches.

If the vagina escapes, no pain of the uterine neck is produced at the moment, nor do any symptoms of reaction take place; menstruation is not affected by it, although in some cases the application has been made near the catamenial period.

This medication is particularly applicable,

1st. To deep, exuberant, fungous ulcerations, complicated by hemorrhage, simple hypertrophy, engorgement, with softening, or induration.

2d. To hypertrophy, with uterine catarrh, but without ulcerations.

3d. To ulcerations, accompanied by a softening of the tissue of the uterine neck, which bleeds under the influence of the least pressure.

4th. To severe neuralgic affections of the neck.

5th. To ulcerations of a malignant nature, for which amputation has been recommended.

M. Jobert has been successful with the red-hot iron in cases of this nature, where the patient has submitted to two excisions.—*Gazette Médicale ;* from *Provincial Med. and Surg. Journal.*

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10. *Prophylactic Remedy against Ptyalism.*—Dr. Schoepf, Professor at the University of Perth, recommends the following tooth-powder, during the administration of mercury, in order to prevent the occurrence of salivation:—Dried alum, powdered, two scruples; powder of cinchona, one ounce; to be used by means of a soft brush morning and evening.—*Medical Times.*

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11. *General Paralysis.*—This disease was not properly studied until M. Calmeil made his researches. According to this author, the lesion on which general paralysis depends is a chronic cerebral inflammation, which causes a peculiar modification in the brain.

M. Foville thinks that an adhesion of the fibres of the brain produces the paralytic phenomena.

According to the researches of M. Parchappe, general paralysis is always caused by acute or chronic softening of the middle layer of the cortical substance of the cerebral hemispheres.

M. Scipion Pinel, after ten years' study at Salpétrière and at Bicêtre, and after having compared a great number of observations taken by himself with those taken by other physicians, has established the following distinctions:

Of organic causes there are four very different forms.

In the first form, general paralysis presents itself with all the symptoms of intense cerebral inflammation, terminates fatally in a few days, or in a few weeks, and leaves in the cerebral periphery and centre the most distinct traces of inflammation.

The second form is the preceding one in a chronic state, and is the most common. Here the invasion is slow, sometimes insensible, sometimes sudden. The duration is long. The peripheric substance of the brain, the corpora striata, and the walls of the lateral ventricles, are disorganized, giving rise to softening of different forms and aspects, according as it is seated in the grey or white substance.

The third form presents the external characters of inflammation. The cortical substance is found healthy, but the whole hemisphere is hypertrophied, and the convolutions are flattened against the skull.

In the fourth form there is a local or general atrophy of the convolutions, so that each hemisphere is often reduced to one-third of its natural size. The aspect and development of the disease are peculiar, and contractions of the extremities frequently accompany it.—*Traité de Pathologie cérébrale, par Scipion Pinel.*

12.—*Abscess of the Heart.*—A case of this unusual form of disease is mentioned by Dr. Chambers of Colchester; the account of the symptoms is, however, very meagre. The patient, a boy, æt. 14, was admitted into the Essex and Colchester Hospital on the 6th ult. for disease of the ankle-joint. He continued gradually to improve up to the morning of the 20th, when he was seized with convulsions of an epileptic character. He was found in a semi-comatose state; pupils dilated; jugular veins distended; pulse weak; urine scanty; and bowels confined. By the application of leeches behind the ears, a turpentine enema, and a saline diuretic, he was restored to a state of consciousness and apparent health, but relapsed again during the night, and died on the following day. On examination, thirty-six hours after death, the pericardium was found to be thickened, and strongly adherent to the heart; and an abscess, which contained about two ounces of matter, "extending from auricle to auricle, around the apex of the heart, and lodged in its substance."

His friends stated that he had been in bad health for three years uninterruptedly, and that his illness began with an attack of typhus fever.—*Dublin Medical Press.*

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13. *Cauterisation of the Pharynx with Ammonia.*—M. Monneret, physician to the Hôpital la Charité, has been trying the experiment of cauterising the pharynx with ammonia. In one case of bronchitis, accompanied by great dyspnœa, the relief was immediate. Others have repeated the experiment with satisfactory results. M. Rayer proposes to substitute cauterisation of the palate as less dangerous. The pharynx or palate is rapidly touched with liquid ammonia, diluted with one-third of water.—*Gazette des Hôpitaux.*

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14. *Treatment of Meningo-Cephalitis.*—M. De Laroque, physician to the Hôpital Necker, proposes arteriotomy and blisters to the head in essential, acute, meningo-cephalitis of a very desperate character.—*L'Abeille Médicale.*

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15. *The Pulse in Icterus.*—According to M. Bouillaud, the pulse of persons suffering from icterus is remarkably slow. A patient in the wards of M. Blandin (Hôtel Dieu) had undergone, in the month of November, an operation for the amputation of the fifth toe and a portion of the corresponding metatarsal bone. The wound was almost completely cicatrised, when the patient was, without known cause, suddenly seized with icterus. His pulse was scarcely 40 to 48 in a minute. The patient was strong and robust.—*Annales de Thérapeutique.*

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16. *Tracheotomy in the Last Stage of Croup.*—At the sitting of the Academy of Sciences on the 8th of November, M. Scoutetten, Professor at the Military Hospital of Instruction at Strasburgh, read a case of tracheotomy performed with success in the last stage of croup. He performed the operation on his own daughter, an infant six weeks old, to save her from imminent death.

The operation was successful. According to M. Scoutetten, it is the only instance of tracheotomy performed on account of croup on an infant of this age; and the only one in which such alarming symptoms lasted so long. He is of opinion that this case ought to encourage the timid, and show the surprising resources of nature at this tender age.—*Med. Gaz.*

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17. *Rupture of the Heart.*—Mr. Elkington then brought forward a specimen of rupture of the heart, situated in the anterior portion of the left ventricle, with ossification of the descending branch of the left coronary artery, which had been forwarded to him by Mr. Nason, of Nuneaton, to be exhibited to the Society.

The ruptures, three in number, are situated in the middle of the anterior face of the left ventricle. The one above, the largest, extends downwards and outwards, has very irregular and ragged edges, and is capable of admitting the points of the first two fingers. The middle one is situated below the inner termination and on a level with the outer termination of the rupture just described; it is capable of admitting a goose quill. Underneath these is situated the third rupture, which is large enough to admit the point of the middle finger: its edges also are ragged and irregular.

The parietes of the ventricle are soft and flabby, and very much thinned, especially anteriorly; the aortic valves healthy, but puckered; the lining membrane of the aorta studded with atheromatous deposit. The coronary arteries arise as usual; the descending branch of the left coronary, as it passes down along the line of the septum of the ventricles, towards the apex of the heart anteriorly, is obliterated by ossification; all the other branches of the coronary arteries are healthy. The right auricle, the tricuspid valves, and the right ventricle, are healthy.

Mr. Nason says: "The man was 72 years old, very lame from attacks of sciatica or chronic rheumatism of the hip joint. About three years before his death, I saw him with inflamed and œdematous legs, which yielded to diuretic medicine. He never complained of any affection of the chest, or difficulty of breathing. The day before he died, he told his wife he felt pain in the left side of the thorax. The following day, about noon, he walked a few yards from the door, and dropped down and died in a moment. On a post-mortem examination the viscera in the abdomen were healthy, and also those of the chest, with the exception of the heart. The pericardium was completely filled with black blood, partly coagulated. I fancy my fingers made the lower opening in drawing it out, so as to divide the vessels as high as I could. There is no doubt the upper opening was a rent, from the thin and softened state of the parts, and that it gave way at the moment of the man's death. Is it not rather strange to find disease of so extensive a nature without any striking symptoms during life?"—*Proceedings of Birmingham Path. Society;* from *Prov. Med. Journal.*

PATHOLOGICAL, THERAPEUTICAL, AND OPERATIVE SURGERY.

18. *Extraordinary case of gun-shot wound, where the charge passed from the navel to the back, without fatal consequences.* The details of this interesting case were given by Edward Daniel, Esq., at the anniversary meeting of the Provincial Medical and Surgical Association. John Smith, a fisherman, aged about 25 years, went out on a Sunday morning, in the winter of 1837, with two companions. One of these persons possessed a gun, which was so constructed that it could be taken to pieces and stowed in the pocket. I am not prepared to say whether these gentlemen designed a trespass on the game-laws, or whether their predatory excursions had only reference to those minor bipeds, which the legislature have considered too insignificant for their especial protection. I opine, however, that any wild animal capable of yielding a Sunday's dinner, would have been in great jeopardy had it been luckless enough to cross their path at that time. Certain it is they themselves felt that their pursuit was lawless, for they hastily took their weapon to pieces, on observing the owner of the fields approaching them. In re-adjusting it a second time the stock was not in perfect apposition, and the *wiseacre*, whose business it was to render the weapon *fireworthy*, observing this defect, sought to remedy it by striking the butt end sharply upon the ground. The result may be anticipated, for the gun went off, lodging its contents in the body of John Smith, who stood about three yards from its muzzle.

I was sent for immediately, and arrived just as the poor fellow was brought home. The contents of the gun had entered about half an inch below the navel, on the right side, and had passed out about two inches above the hip, and three from the vertebral column; the distance from wound to wound was about six inches. I could not decide at the moment whether the charge had passed directly through the body, or whether by the resistance of the abdominal muscles, it had been diverted in its course, and had made a semicircular transit immediately under the integuments. Such a thing struck me as being possible, although not very probable. Under the circumstances, I thought it right to give a very unfavorable prognosis, and the family of the poor man were prepared for a fatal issue. The ignited wadding or cartridge passed through the wound unextinguished, and set fire to the shirt, opposite the posterior opening.

The public prints gave a detail of the accident at the time, but the public were never informed of the result.

Perhaps it may be in the recollection of many gentlemen present, at any rate it must be familiar to those who are in the habit of reading and treasuring remarkable surgical cases, that in the year 1811 or 1812, a gentleman in the act of taking his horse from his gig, was in consequence of the impatience of the animal, suddenly pinned to the wall. The end of the shaft coming in contact with his side, penetrated the thorax, making its way completely through the chest, and passing out under the opposite axilla. My memory will not serve me to mention the name of the surgeon who attended, and afterwards published a narrative of the case. Sir William Blizzard, I know, was called in. I had an opportunity of examining this case after the patient's wonderful recovery. He was brought to Mr. Brookes's amphitheatre, at the time I was a pupil there; the pamphlet was read, and the gentleman submitted himself to be freely examined by all the students. The case made a great noise at the time. I quote it simply to justify my own practice in the manner I treated John Smith. The surgeons looked upon the case as hopeless; so did I. They merely defended the wound; I did no more. There was neither probing nor poking, no endeavors to remove extraneous substances. Nature was left to her own operations, and nature in each case did her business, far better than we, her assistants, could. In the case of John Smith, the wounds progressed properly, portions of garment, and other extraneous matter, passed out at the posterior opening, and about 40 shot passed with them. There still remain under the integuments perhaps 15 or 20 of the shot, but he suffers no inconvenience from them, and is scarcely aware of their existence. The man continues in excellent health.

I am quite aware that this case has nothing to recommend it to your notice, except as exhibiting one of those extraordinary events, which show either the marvellous interposition of Divine Providence, or a concatenation of opposing influences, whereby what would appear to human judgment as mortal injuries, are, after all, without human aid, rendered harmless.

To account for these anomalies is out of the reach of mortal speculation, for who is capable of pointing out the idiosyncrasy which succumbs in one case, and resists in another; or can tell by what extraordinary process the most formidable weapons shall enter the great magazine of human existence, and in the rudest manner interfere with the most delicate structures, and the functions of animal life be yet preserved?

There is one practical inference which I think may be drawn from this case, and that is, in deep and dangerous injuries, where vital parts may be involved in the mischief, the less we interfere with the processes of nature the better, and I am convinced that much evil is often inflicted by our readiness to anticipate the beautiful workings of the *vis medicatrix naturæ.*—*Provincial Med. and Surg. Jour.*

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19. *Bougies with Alum.*—In diseases of the urethra, M. Jobert employs alum in the following manner. He spreads upon a table some burnt alum, reduced to powder. He then takes a wax bougie of a size suited to the dimensions of the canal, heats the end of it at a lamp, kneads it with his fingers, and then rolls the portion thus softened in the powder. This he continues till the bougie becomes thoroughly incorporated with it. When that is accomplished, the extremity of the bougie becomes white, and the superfluous alum is removed by a little friction. The instrument is then dipped in oil, introduced, and maintained for a time in the portion of the urethra where the patient complains of pain.

By this means M. Jobert is enabled to employ an application which, from the tightness of the canal in certain cases, he could not have done by means of the ordinary *porte-caustique.*—*Annales de Thérapeutique*; as quoted in *Journal de Médecine et de Chirurgie Pratiques.*

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20. *Sudden Retraction of the Testicle.* By T. Rising, M.R.C.S.L.—The following somewhat singular case came under my notice the other day. John Abbs, aged 21, cook aboard a vessel from St. Petersburgh, asked for my advice under these circumstances. A few days since, while aloft, furling the trysail, he struck his scrotum a smart blow, which, however, was not immediately followed by pain,

sickness, or anything unusual; but the *next* day while carrying dinner down the cabin, he says his *left* testicle *suddenly* disappeared (never having done so previously); feeling somewhat sick and faint, he mentioned the fact to the master of the vessel, who gave him a slight anodyne and some aperient medicine, but up to the present time (now about 10 days since the blow) the testicle has remained obstinately retracted. Could I not have *felt* it, in its new position, I should have been inclined to consider this a case of *congenital monorchis;* the general appearance of the scrotum, and apparently improbable history of the case, strongly leading to such a supposition.—*London Medical Times.*

21. *Lithotomy followed by an Affection of the Leg closely resembling Phlegmasia Dolens.*—Amram Amos, aged 19, seaman, from Maidstone, in Kent, where he had been accustomed to drink largely of cider. Admitted November 15th, 1838, with stone in the bladder. Has much pain in glans penis after passing urine, and in the pubic region; frequent desire to pass urine. Symptoms commenced about three years ago. On sounding, a stone was distinctly felt. A warm bath, opiate, and purgative, were prescribed, and a soothing treatment pursued till December 4th, when the operation of lithotomy was performed. A stone of the mulberry figure, but yellow color, weighing five drachms and a half, was soon extracted, and nothing of an untoward character attended the operation; after which an opiate was given. In the evening he complained of some uneasiness in the pubic region, which yielded to fomentations and an opiate. The urine passed freely through the wound, and the pulse was soft and quiet.

7th. Going on well; urine partially passed by urethra.

8th. Had a slight rigor in the night, the urine having accumulated in the bladder; an injection gave relief. Has not slept, and has slight uneasiness in the pubic region. Tongue slightly furred; pulse soft, 96; urine not discharged for some hours; bowels freely opened. An emollient enema to be given, followed by an opiate, if pain should continue.

Evening. Urine not discharged, and very uneasy. On raising his legs a little to pass an elastic catheter, a large gush of urine took place, which afforded great relief. After this he went on well, the urine passing naturally, almost entirely on the 15th (the eleventh day) till the 22d, when he complained of pain in the left iliac region, which was slightly increased on pressure; the pulse was soft but quickened. Fomentations, with an opiate and aperients, were prescribed. On the following day the pain extended to the left groin. Leeches relieved, but did not quite remove it. The urine continued to pass naturally, and the wound was healing well. On the 24th, some tenderness remaining, leeches and fomentations were again had recourse to.

26th. Pain entirely removed.

27th. Complains of pain in the left thigh in the course of the great vessels; no pain remaining in groin; in other respects going on well. Leeches and fomentations again employed.

29th. A good deal reduced, but free from complaint, except swelling and pain of the left leg, which much resembles phlegmasia dolens. Fomentations and an anodyne. Stimulating liniment prescribed.

31st. Still complains of the leg, but in all other respects doing well. The final closure of the wound was retarded by the affection of the leg, and requisite treatment; and the leg remained large, stiff, and slightly painful for some weeks, following very much the course of a genuine case of phlegmasia dolens; but towards the end of February a slight stiffness only remained, and on the 27th he was discharged, cured.—*Greenhow's Infirmary Cases in Prov. Med. and Surg. Journal.*

22. *Subcutaneous removal of the Lower Jaw for Osteo-Sarcoma.*—The subject of this operation was the mother of three children, and the disease occupied the right half of the horizontal, and part of the ascending portions of the lower jaw, having commenced in the bony structure, and grown to the size of a man's fist. The tumor was circumscribed, and occupied the lower jaw from the first incisor tooth, to near the neck, or narrowing of the ascending ramus of the affected side,

approximating the condyle. Neither the *horizontal* incision through the integuments, as practised by Mott, nor the *oblique* of Grafe, the *quadrangular* of Langenbeck, the *elliptical* of Lyme, nor the *complicated* of Cusack, seemed suited to the case in the view of Signorini, the operator, who conceived the plan of proceeding without interrupting the continuity of the skin, or making any external wound, by conducting the whole of the operation in the interior of the mouth. The great point towards effecting this object consisted in the means for dividing the bone in the two places required, which was accomplished by means of cutting pincers or forceps. This was the second part of the process, the first consisting in the necessary steps for insulating the tumor, and the third in its removal through the mouth, which was not accomplished till the tumor was divided into two equal parts. The case, however, was successful, and we have only to suggest that, where a similar operation shall be undertaken, to remove an osteo-sarcoma with the least possible interference with the integuments, an incision in the median line of the lower lip, which will subsequently be no disfigurement, and is attended by no inconvenience nor danger, would very much facilitate the business, and obviate the inconvenience of having to bisect the tumor before its complete removal.—*Bulletino delle Scienze Mediche di Bologna*; from *Prov. Med. and Surg. Journal.*

23. *Stricture of the Œsophagus*—Mr. Elkington exhibited a specimen of stricture of the œsophagus, situated opposite the larynx, which had been sent for presentation to the meeting by Mr. Nason, of Nuneaton, who said that it was taken from a female about seventy years of age, who had suffered from difficult deglutition for the last two years of her life, and for a very much longer period from dyspeptic symptoms. During her treatment, Mr. Nason frequently passed bougies, and she also had bougies passed at the Queen's Hospital, where she was a patient for a time. Towards the close of the case, the smallest bougie could not be passed, and the patient died from inanition. The body was not permitted to be examined beyond the throat.—*Proceedings of the Birmingham Pathological Society*; from the *Prov. Med. and Surg. Journal.*

24. *Uncommon Case of Urinary Disease—Urine voided by the Rectum and Umbilicus—Death from Retention.*—Dr. Kirby relates the following case in the *Dublin Medical Press*:—"Mr. E——, ætat. 50, had an attack of morbus coxæ at the period of puberty. The disease advanced to suppuration, and in time the limb became shortened and atrophied; the hip and knee anchylosed, while numerous abscesses formed in succession about the joint, and ended in many sinuses, which occupied the buttock, the groin, the vicinity of the anus, and the region of the sacrum.

"Some of these occasionally dried up, and re-appeared after a few days' continuance of painful inflammation. Minute fragments of bone frequently appeared in the discharges. This state of things continued to the time of death, without seeming to have much effect on the constitution.

"Three years ago, Mr. E—— consulted me on account of an increasing incontinence of urine, which had troubled him for several months. He never passed a stream except at stool, and then in small quantity; this was milky, highly alkaline, and when cool, abounded with mucus—qualities which it exhibited in a greater or less degree in every subsequent stage of his illness. In a few instances he found in the urinal small clots of blood, with a minute, irregular-shaped gritty substance. The urethra easily admitted a catheter proportioned to its size; the prostate gland was small and flabby; the bladder felt solid, and lay like a firm tumor behind the pubis, and was painful on pressure.

"Notwithstanding these circumstances, his health was not considered to be impaired until within the last six months, when he grew careless and less active in his usual occupation. He now lost appetite and flesh, had a craving thirst, and was occasionally affected with a profuse diarrhœa. Two months before decease he was attracted by a remarkable diminution in the urine, at the same time suffering from a teasing looseness of the bowels. The discharges were thin, yellow, frequent, scanty, and yet amounting on the whole to a considerable quantity. The abdomen now was distended, and tympanitic in the hypochondria; the stomach irritable, and he was oppressed by a lethargic indifference; the pulse full and slow; tongue brown and dry; articulation tardy and indistinct; a number of malignant boils formed on the cheeks, lips, and hands; no urine by the urethra, and but little, with its usual characters, by the catheter. Singultus and delirium after seeming sleep; the diarrhœa ceased; the absence of urine and the other symptoms persisted for four days. A small, hard, red tumor was observed in the umbilical fossa. This broke in a day, and urine issued from the orifice in a small trickling stream, and to a large amount.

"From this period a remarkable change took place in all the symptoms. The semi-comatose state and singultus quickly disappeared; the stomach retained nutritious food; the boils grew clean and quickly healed; the strength returned, and in some time he was able to resume his mercantile pursuits, annoyed only by the urinary fistula, and the surrounding painful excoriations.

"Matters thus continued for a few weeks. The fistula healed spontaneously, and then the former symptoms rapidly returned: but these were again arrested on the supervention of the usual diarrhœa, now ascertained to be composed principally of urine. This ceased without any medical interference. From this period cerebral congestion hourly advanced. The vessels of the scalp exhibited great turgescence; the eyes became suffused; the face florid and tumid, and the carotid arteries beat with great violence; pulse full; breathing slow and stertorous. When addressed in a loud voice, he gives a vacant stare, soon relapsing into coma; he lies with lids wide open, and eyes turned upwards. Pus oozed from the urethra, and a small quantity came away with the catheter. In this state he lived three days. A post-mortem examination could not be obtained."

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25. *Colloid Degeneration of the Os Calcis.*—A man, aged fifty years, of a good constitution, had, since his childhood, carried a tumor upon the plantar surface of the os calcis on the right side. He had never experienced any pain from it until within a short time previous to his entering the hospital, and had consequently not thought of getting relieved of it. But the tumor having ulcerated, and having thereby occasioned him considerable suffering, the patient entered the wards of M. Jobert, Hôpital St. Louis. On examination, a globular, sacciform tumor of the size of an adult's fist, was found situated on the posterior part of the bottom of the foot, having a tuberose surface, like that of some kinds of potatoes. Some of the tuberosities were soft at their summit and middle portion, but very hard at their base. The tumor was continuous with the os calcis, immoveable, ulcerated only at its summit through a hole having the shape of a funnel, with hard fatty borders. The surrounding parts at the base of the tumor were diseased. Nearly all the plantar surface was hard to the touch. The articulations of the bones of the foot were but slightly moveable, and the tibio-astragalian surfaces appeared anchylosed. The skin of the foot was healthy, and the leg was exempt from disease, being only a little emaciated. There were no ganglia anywhere to be found. The patient's constitution appeared healthy. It was evident that the simple ablation of the tumor would be impracticable, consequently M. Jobert amputated the leg at its inferior fourth. The dissection of the tumor was made by sawing it and the foot into two lateral halves. It was found to be formed by the os calcis, which was converted into cancerous matter of that description called colloid. In some points this matter was soft, in others hard. In some points it resembled pieces of tendons of veal very much cooked; in others it resembled a jelly. This matter was extravasated through the articulations of the tarsus and metatarsus, and around the astragalus.

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26. *Researches on Wounds of the Blood-vessels.*—M. Amussat has lately sent a paper on this subject to the Academy of Sciences. The following is a summary

of it. 1. When an artery that has been cut across in a large wound, ceases to bleed spontaneously, it is wrong to suppose that spasm, erethism, or contraction of the artery are the cause of it. 2. The bleeding is arrested by a clot of blood which completely closes the extremity of the vessel. 3. This clot is not merely a tampon; it is attached to, and identified with, the border of the arterial opening, and particularly with the cellular membrane. 4. The formation of this spontaneous clot is important to be understood by surgeons; for, instead of seeking the open orifice of a divided artery, they should seek the clot. 5. The difficulty of finding a vessel that is stopped by a clot ought to induce surgeons to practise vivisections upon animals. 6. Experiments and facts observed upon man prove that we ought not to abandon too soon our attempts to find a wounded artery, for dangerous hemorrhage may take place in spite of compression and tamponnement.

27. *Ligature of the Carotid.*—Dr. Duncan related a case in which he had tied the carotid on account of hemorrhage following ulceration of the fauces. The hemorrhage was completely arrested by the ligature, and the patient did well until a bronchitic attack supervened, which proved fatal on the fourteenth day, from the patient being unable to expectorate the tough ropy mucus. Dr. Duncan contrasted this case with one which he had communicated to the society on the 1st of May, in which the patient died at a similar interval after the operation. In the first case, the process of obliteration of the artery was found, on dissection, to have been completed in every particular; in the latter case, the distal portion of the artery above was found closed with an internal coagulum of about half an inch in length. The dissected ends of the artery were separated from each other by more than one-third of an inch, and without any effusion of lymph betwixt them. The cardiac end of the vessel was patent for about an inch from its divided extremity, and at this point was blocked up by a coagulum about three quarters of an inch in length, which alone had prevented the occurrence of secondary hemorrhage. Dr. Duncan was of opinion, that had the patient not perished as he did, secondary hemorrhage would, in all probability, have ensued, as softening of the coagulum had already commenced.—*Proceedings of the Medico-Chirurgical Society of Edinburgh*; from the *Dublin Medical Press.*

28. *Penetrating Wound of the Chest, produced by a Gun-shot Ball, afterwards evacuated by Stool.*—A young lad, aged 15, received a shot from a height, the ball penetrating the chest. When brought to the Hospital of Barcelona, he was in the following state. On the lateral portion of the left side of the thorax, opposite the middle of the sixth rib, there was perceived a wound, the extent and form of which indicated that it had been produced by a ball, as the patient himself declared. No exit being found, it was suspected that the ball remained in the wound, and on introducing the finger, M. C. was convinced it must have penetrated the thorax. The middle portion of the sixth rib was fractured. M. C. merely brought the edges of the wound as closely together as possible by means of adhesive strap and a bandage, in order to prevent the entrance of air. There was fever, bloody sputa, difficulty of respiration, and pain of chest. A bleeding to the extent of 15 ounces was prescribed, together with demulcents, absolute rest, silence, and rigorous diet. Eight additional bleedings, to the extent of a pound each, were practised on the following days; but notwithstanding this energetic treatment, the respiration became more and more difficult, and the patient sank on the twelfth day. But, singular enough, on the sixth day he had passed the ball by stool, without ever having exhibited, says M. C., the slightest symptom of irritation in any portion of the alimentary canal, nor any lesion of the diaphragm, or effusion into either the abdominal or thoracic cavity. On dissection the course of the ball was traced from its entrance to its exit. The interior surface of the fractured rib presented a number of spiculæ, which must have constantly irritated the corresponding portion of lung. A fragment of

the internal lamina, about the length of an inch, had penetrated the base of the lung. The whole of the left lung adhered to the costal pleura, and was infiltrated with pus; the right lung presented the same appearances, but in a less degree. The fragment of the rib was so deeply imbedded in the lung, that the slightest pressure caused it to project into the internal surface of the pericardium. There were adhesions between the diaphragm and stomach. The wound traversed the base of the lung from above downwards, and penetrated the stomach. The opening into the stomach was perfectly round, similar to that in the lung. The course of the wound explains the expulsion of the ball by stool.—*Repertorio de la Sociedad de Emulacion de Barcelona*, quoted in *L'Expérience.*

29. *Amputation at the Ankle Joint.*—This operation, Mr. Syme says, in the *London and Edinburgh Medical Journal*, should supersede amputation below the knee in a great many cases. The flap should be obtained from the heel and sole of the foot, as the natural thickness of the integument at those parts will afford a proper support to the stump. The best instrument for performing the operation is a large bistoury, or small amputating knife, with a blade about four inches long. There is no occasion for a tourniquet, as the assistant has complete command of the vessels by grasping the ankle. The incisions across the instep and sole of the foot should be curved, with the convexity forwards, and exactly opposite each other. A line drawn round the foot, midway between the head of the fifth metatarsal bone and the malleolus externus, will show their extent anteriorly, and they should meet a little way further back, opposite the malleolar projections of the tibia and fibula. If the ankle-joint is sound, the malleolar processes should be removed by cutting pliers; but if the articulating surfaces are diseased, a thin slice thereof should be sawn off. Care should be taken to avoid cutting the posterior tibial artery before it divides into the plantar branches, as in two cases where Mr. Syme did so, there was partial sloughing of the flap. The edges of the wound should be stitched together, and lightly dressed. When the cure is completed, the stump is of a conical form, the thick integument of the heel constituting its apex, or point of compression.

30. *Successful Removal of the Uterus by Ligature.* By JONATHAN TOOGOOD, M.D.—About 16 years ago, I was requested to visit Miss L., aged about 40, who was represented to be suffering from a considerable swelling, which prevented her from passing any water. The introduction of the catheter was rendered somewhat difficult from the protrusion of a large mass from the vagina, but after a little time I succeeded in drawing off between two and three pints of water, and then proceeded to make a more accurate examination. I found that the uterus was completely prolapsed, and hanging down between the thighs. There was not much difficulty in returning it, or retaining it in its natural situation, by a large globular India-rubber pessary, which I directed to be removed occasionally and replaced. I heard no more of my patient for three years, when I was again desired to see her, on account of a profuse and most offensive discharge, which had existed for some time. To my very great surprise I discovered that the pessary had never been removed, which at once explained the cause, and I was actually obliged to deliver her of it with the forceps. From that time, as I subsequently learned, it was never replaced, consequently the uterus was frequently coming down, and prolapsing beyond the external parts, and she had acquired the habit of returning it by sitting over an open space, and pushing it back with the fingers. This course was pursued until the 13th of April last, when it came down, and after making repeated ineffectual attempts to return it for three days, she sent for my late partner, Mr. Parsons, who gives me the following statement:

"On Wednesday, April 17th, I was sent for to see Miss L., a maiden lady, nearly sixty years old, whom I had before known to be suffering from a prolapsus of the womb; on my arrival I was informed that this had come down on the previous Saturday during a violent fit of coughing, and that all her attempts to reduce it had failed. On examination, I discovered a very large protrusion, of a pyriform shape, and extending from the vagina to at least 7 or 8 inches. The surface was not very sensitive, but was of a red, florid color, and in some parts ulcerated and ecchymosed from repeated attempts to effect its reduction, and from which some hemorrhage occasionally occurred. Every attempt on my part to return it being fruitless, I ordered some leeches and cold applications to be used, hoping, in a day or two, by these means, to reduce its bulk, so as to enable me to return it. None of these remedies, however, succeeded, and as, on a more careful examination, I discovered that the neck of this large mass, as it entered the vagina, rather diminished in size, I requested a consultation with my friend Mr. Toogood, who had formerly attended the patient, who agreed with me on the practicability and safety of removing the whole by ligature. Accordingly, on Sunday the 21st, we applied a ligature very firmly round the neck of the swelling, just within the vagina, and took away the protruded part immediately.

"The mass removed was almost 2lbs. weight, the shape of the uterus, but its structure much altered in character, the cavity being quite obliterated, and the os uteri become almost cartilaginous. No bad symptoms ensued, and she told me yesterday, the 22d, that she was as well as when she was sixteen.

"On examination, no uterus can be discovered, but the vagina seems to terminate in a short cul de sac."

I advised the operation with the greater confidence from having, in the course of my experience, known two other cases in which the whole body of the uterus was removed by ligature, without any immediate danger; but as these cases were not my own, I know nothing of the details or ultimate event of either.—Abridged from the *Prov. Med. and Surg. Journal* for 10th July, 1844.

OBSTETRICS AND DISEASES OF FEMALES.

31. *Galvanism in Uterine Hemorrhage, by* THOMAS RADFORD.—Uterine hemorrhage sometimes proceeds to such an extent as to render the delivery of the child, in my opinion, a dangerous practice, although sanctioned by some of our best obstetric writers, and adopted by the great bulk of the profession, being considered by them as giving the woman the best, if not the only chance of surviving, and of saving the child's life in such cases of extreme exhaustion from flooding. I have, therefore, in this short communication, suggested the application of a most important remedial agent, capable as far as I am able at the present time to state, of rousing the subdued energies of the uterus, and thus bringing into operation that power which can alone secure the woman from further loss, I mean the contraction of this organ. This consequently would enable the practitioner successfully to adopt such measures as would have the effect of raising the vital powers, and at the same time would also prevent any further effusion (which nearly always occurs) in cases where the action and power of the heart and arteries are increased by the administration of stimulants, or other means of support, while the uterus still remains in an atonic state.

The remedy I allude to is galvanism. Slight shocks carried through the long axis of the uterus, by means of a conductor being introduced along the vagina to the os uteri, and another being placed externally over the fundus. Shocks should also be carried transversely through the organ, by placing a conductor on each side.

I have not entered into a detail of all the means to be used in these cases, but have only made this communication in order that those of my professional brethren, who may meet with such cases, may have the opportunity of adopting the practice here recommended, intending to enter more fully into the subject when I have completed the experiments I am at present engaged in.—*Provincial Surg. and Med. Jour.*

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32. *Fatal Uterine Hemorrhage.*—Dr. Waddy exhibited a placenta which had been taken from a patient who had died from internal hemorrhage prior to delivery. Cæsarean section, half an hour after death.

I was called, on the evening of Sunday, June 16, in a great hurry, to see Mrs. James, residing at No. 2, —— Court, Holloway-Head, an out-patient of the Lying-in-Hospital. I found her evidently in a state of great collapse, the pulse was small, feeble, and tremulous; the skin cold and damp, and her face pale; she also complained of a very violent cramping pain round the upper part of the abdomen, which had been constant for several hours, and which she thinks was occasioned by a violent exertion in the morning. She had not had any labor pains, and the os uteri was but slightly dilated, just admitting the points of two fingers; it was, however, soft and dilatable. There had not been any external hemorrhage, nor was my finger blooded by making the vaginal examination. The abdominal parietes were firm and unyielding. There being no appearance of labor, I left, having administered a dose of brandy and water. She was ordered also the following mixture:—Three drachms of sulphuric æther, one drachm of Battley's sedative, and seven and a half ounces of camphor mixture. An ounce to be taken every four hours.

I was almost immediately re-called, and found on my arrival that she had suffered from an attack of external hemorrhage, which had still further reduced her.

The os uteri was about the size of half-a-crown, but there was not the least appearance of uterine action. In the hopes of exciting it, I gave her a dose of ergot and fresh quantities of brandy, but the collapse continuing, I requested the assistance of Dr. Waddy, in whose district the patient resided. The Doctor arrived just as the woman was in articulo mortis. Mr. Elkington was also sent for, and upon his arrival it was determined to open the uterus through the abdominal parietes. The operation was accordingly performed in about half a hour from the death of the mother, but the child was dead, aud had been so apparently for some time. The placenta was found to be entirely detached from the uterine surface, and a very large and firm coagulum occupied the posterior part of the cavity of the uterus.

Dr. Waddy stated that he was indebted to Mr. Clarkson, the resident surgeon of the lying-in-hospital, for the above case.—*Proceedings of Birmingham Path. Society;* from *Provincial Med. and Surg. Jour.*

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33. *Case of Deformed Pelvis—Cæsarean Section—Death.*—The following interesting but unsuccessful case of craniotomy and Cæsarean section, is communicated to the *Provincial Medical and Surgical Journal*, by Frederick Cox, Esq.:—"Rebecca Brooks, aged 27, the subject of this paper, was a single woman, residing at Welford, pregnant for the first time. She was a very diminutive person, with large head, short neck, short crooked legs, very hollow back, and weak intellect. I was called to attend her on Thursday, the 8th inst., by an order from the relieving officer. I saw her at five o'clock, P.M. I found her in labor; she had been so throughout the day, and had experienced strong pains since twelve o'clock. The pains were now strong and regular, and occurring about every five minutes; the membranes were ruptured by a pain, and much liquor amnii had escaped. On examination I found the vagina well lubricated, soft, and easily distensible. Upon passing my fingers into the pelvis, I met with a large round substance, which I at first took for the child's head; but soon discovered to be the promontory of the sacrum, occupying the greater part of the pelvis. With a great deal of difficulty I succeeded in getting the fore-finger of my left hand over the pubes, and ascertained the child's head to be presenting. I was alarmed at finding I could but just pass two fingers between the sacrum and pubes, or, in other words, to find the antero-posterior diameter of the pelvis to be about an inch and a half. After waiting an hour, I sent for my friend Mr. Colston, of Bosworth, and we had a consultation, the result of which was, a determination to obtain a third opinion, as we coincided that craniotomy would be of little or no avail, there being insufficient space for the base of the skull, &c., to pass. After considerable delay, we were so fortunate as to obtain the aid of Mr. Francis, of Harborough. The poor woman had continued to have pains regularly throughout the night, and at eleven o'clock on Friday morning we met in consultation, and, having well weighed the matter, we agreed that we would attempt craniotomy; in fact, although it held out but small hopes of success, we considered we were bound to try it patiently and perseveringly. The child's head remained exactly as it had been at five o'clock on the previous

night; it could be readily felt on the outside of the abdomen, resting on the upper edge of the pubes. The os uteri had been fairly dilated many hours. The operation was performed in the usual way, and after between two or three hours almost incessant labor, we painfully felt that our efforts had been useless, as, after crushing the head, we could not cause the advance of the rest in the smallest degree, and we discontinued longer employment of these means. The patient's pulse was now fluttering and feeble; she evinced symptoms of temporary exhaustion, and the labor pains were almost suspended.

"We again consulted, and were unanimous that the Cæsarean operation could alone deliver her, and having explained to the poor creature and her friends her exact situation, and the nature of her case, and proposed the only remaining remedy, we withdrew for half an hour. The patient and her mother were both willing that the operation should be performed, especially the former, who said that she would rather suffer any operation, than allow us to renew our attempts to extract the child.

"At half-past two we proceeded to perform the Cæsarean operation, having previously ascertained that the bladder was empty. The patient having been placed upon a board, with the head and shoulders a little elevated, an incision was made through the skin and cellular membrane, about seven inches in length, a little to the left of the linea alba, and commencing about two inches above the umbilicus; having carefully dissected through the parietes at the upper end of the incision, so as to admit two fingers, I used these as a director, and completed the external incision. The peritoneum was simultaneously divided; no hemorrhage attended this step of the operation. The protruding intestines were carefully held aside by my friends, and an incision of four inches and a half in length was made into the uterus, commencing a little below the fundus; the walls of this organ were about three quarters of an inch in thickness. Considerable hemorrhage now took place, the more so, as the placenta was placed rather anteriorly, and about a third of it was cut through. The child was easily and quickly removed, and the placenta with the same facility, the uterus contracting forcibly and well. The child was large and well made, and of more than ordinary dimensions. The blood lost did not amount to more than fourteen or sixteen ounces. The edges of the abdominal wound were brought together, and five sutures employed, placed about an inch apart. Adhesive straps round the abdomen, and a bandage, completed the operation.

"I ought to have stated that a quantity of serum was seen in the abdomen when the parietes were cut through.

"Scarcely was the operation finished before symptoms of syncope were manifested, and the woman vomited a considerable quantity of a greenish colored fluid—an early intimation of the sympathy existing between the stomach and the injured uterus. The patient was placed in bed, and thirty drops of laudanum administered. She soon recovered from the more alarming symptoms, and expressed herself easy and comfortable, and said, 'this operation was a flea-bite to the other,' alluding to our attempts to extract the child.

"6 P.M. Pulse 100, soft; has had slight vomiting, but has partially recovered her calm appearance, and is easy. Has occasionally had a few teaspoonsful of brandy and water. An effervescent draught, with five drops of tincture of opium, every three hours.

"10 P.M. The vomiting has continued at intervals; has had no hemorrhage; the pulse and general symptoms the same as at the last visit. Ordered one grain of opium with five grains of calomel immediately.

"Saturday, 10th, 7 A.M. Has had no sleep; complains of slight tenderness in the abdomen; has vomited occasionally throughout the night; pulse 130, soft and compressible; tongue clean and moist; has passed urine several times; lochia inconsiderable, but there has been a large discharge of sero-sanguineous fluid from the wound in the abdomen; does not appear weak or exhausted, and is very cheerful; has had water gruel and arrowroot with wine.

"2 P.M. Met Mr. Colston in consultation; the patient much the same as at last visit, but the vomiting is more distressing. An effervescent draught, with two drops of hydrocianic acid, every three hours.

"8 P.M. Vomiting not relieved; pulse 140, soft. The bowels not having been moved, ordered an enema, which brought away but a small quantity of feculent matter. The hydrocianic acid having had no effect in abating the sickness, I gave two grains of opium, with five grains of calomel, in the form of pill.

"10½ P.M. The sickness has not returned, since the pills were taken; is very easy, and inclined to sleep.

"Sunday, 11th, 6½ A.M. The vomiting returned about eleven o'clock, and has continued at intervals throughout the night; the matter ejected is of a coffee-ground appearance, and from two to three pints in quantity; the tongue is still moist, but discolored by the matter vomited; pulse 150, soft and compressible; does not complain of pain, excepting that the bandages, &c., are tight; the belly is tympanitic; some tenderness on pressure. A sero-sanguineous fluid, of an offensive character, has issued from the wound in the abdomen, and some from the vagina; has had nothing pass the bowels; the urine passes involuntarily every time she vomits; administered an enema, which brought away much feculent matter, and gave great ease. Arrowroot and gruel, and a little brandy, have been given occasionally.

"11 A.M. Met Mr. Colston in consultation; has had no sickness since the last visit; pulse is more feeble, 160; tongue still moist; we partly removed the bandages, and divided some of the adhesive straps; does not complain of pain, nor of much tenderness on pressure. Continued to take the effervescing salines, with 15 minims of aromatic spirit of ammonia. In the afternoon she slept for two hours, and awakened cheerful, but soon after experienced dyspnœa; slight delirium came on and the pulse gradually sank; but the sickness did not return until about eight o'clock in the evening, when she vomited a little grumous matter, and soon after expired, having survived the operation fifty-four hours.

"*Sectio cadaveris*, fourteen hours after death. No attempt at reparation was visible in the external wound, this being enlarged and continued transversely on each side, the uterus was seen, well contracted, and sinking into the pelvis; the edges of the incision were in close apposition, but everted; I mean that the edges were together at the decidual surface, but apart at the peritoneal, the walls being an inch and a half in thickness. It contained about two or three ounces of coagula. The peritoneal coat showed patches of inflammation, but only to a trifling extent, and no traces of lymph could be detected; the lining membrane was here and there marked with a patch of redness, and was much congested. On the peritoneal coat of the bladder and intestines, a blush of inflammation was here and there seen; but all the viscera were free from adhesions or deposits of lymph. The greatest appearances of disease were apparent on the peritoneum lining the anterior part of the abdomen, and closely in connexion with the cut edges of that membrane, and hereabout a few pieces of lymph were discovered. The stomach appeared healthy; both this organ and the intestines were much distended with flatus. The liver was of its normal size, but of a pale color; the kidneys were in a similar condition; the lining membrane of the vagina was highly congested; the cavity of the abdomen contained a few small coagula, and about twelve or fourteen ounces of bloody serum.

"The uterus, vagina, bladder, and rectum, being removed, the pelvis could be well examined. The promontory of the sacrum with the lower lumbar vertebræ arched forward, so as to overhang the pelvis and fill the greater portion of its space. The space between the sacrum and symphisis pubis was from one inch and three-eighths to one inch and a half.

"*Remarks.*—From the ascertained admeasurement of the pelvis after death, it is very apparent that the child could not have been extracted by embryotomy, and some of my professional brethren may censure its adoption; but I think that those who have had to do with so unusual a case as mine, and others who have witnessed the success that has attended its employment, when adopted perseveringly and patiently, in cases at first holding out small hope of delivery, will readily excuse the practice. English practitioners feel, and justly feel, the great importance of the mother's life, compared with that of the child, and when one or other must be sacrificed, would immolate the latter. Dr. Thynne said, 'it was better to open six heads *un*necessarily, than lose one woman.' I do not think many will agree with him in saying so much, but I believe the majority of practitioners would resort to craniotomy first, in a *doubtful* case, giving the woman all the benefit that may accrue from it, before proceeding to delivery by the only remaining means—the dreadful operation of the Cæsarean section—an operation that has been so singularly fatal in this country, that nothing can justify its use, whilst any *possible* mode of delivery remains untried.

"I cannot imagine a medical man placed in a more delicate and responsible situation than the one in which he has to determine upon the destruction of a child in utero, in a case where there is a great doubt of its ultimate advantage to the mother. Yet, I think, considering the statistics of the Cæsarean operation, it ought not to be neglected if it held out but a *faint hope* of a successful termination of the case.

"If I might venture to advise those who may unfortunately have to deliver by the Cæsarean section, I would say, 'Make your incision into the uterus as small as possible, compatible with the extraction of the child.' The prostration of the nervous system from an extensive wound into so important an organ as the uterus is immense, and such as few can recover from; how necessary is it, therefore, to save it as much as possible, and not to cut an inch nor half an inch needlessly. Doubtless the majority of deaths, the result of this operation, have arisen from the shock to the system, and not from the extensive wounds being beyond reparation.

"I think, from the *post-mortem* appearances in the case here reported, it is fair to infer that recovery would have taken place, could the system have withstood the shock consequent upon the operation.

"The only difficulty I experienced, was from the presence of the bladder, which was not entirely emptied, and great care and caution were required in order to prevent its being injured; a fact that may be worthy the notice of those who may perform the operation hereafter."

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34. *Granular Vaginitis.*—In the *Archives Générales de Médicine*, for July, M. Deville, interne of the Venereal Hospital for Women, at Paris, gives an account of this new disease, which he describes thus:—"It consists in the development of indolent granulations upon the vaginal surface, of one quarter of a line to one line in diameter, sometimes solitary, but more frequently in groups. They are seated principally in the superior part of the vagina, and on its posterior surface, although they frequently line the whole passage. Sometimes they invade the os uteri, but in such cases they are confined to its external surface. Most frequently they are found on the summit, and not in the interval of the folds of the vagina. The disease is chronic from the beginning. The development of the granulations is accompanied by a discharge, which is more or less abundant. The liquid secreted is thin, not viscous, sometimes moderately thick, creamy, and of a shade of color between a green and a yellow. The presence of this liquid is a constant characteristic of the disease. When, by means of the speculum, you see a greenish or dirty white appearance upon the bottom of the vagina, where small red points, which are the summits of the granulations, make their appearance, you may make your diagnosis in all confidence. The lesion is easily distinguished from simple vaginitis, from uterine catarrh, or even from granular metritis, for in this last disease the granulations only occupy the internal surface of the neck, and are besides frequently subject to ulcerate, which has never been observed in the granular vaginitis."

The best treatment M. Deville found to consist in injections of a weak solution of nitrate of silver.

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35. *Sore Nipples.*—M. Marchal applies a solution of the extract of rhatany, and finds that it gives great relief.—*L'Abeille Médicale.*

36. *Treatment of Leucorrhœa.*—M. Velpeau treats this discharge with success by the following means:—Injections into the vagina of a decoction of walnut leaves, once a day, continued for two weeks. For two weeks following, the decoction is to be replaced by a solution composed of one drachm of alum and one glass of barley water. Lastly, for the same space of time, substitute calomel and barley water in the proportion of one dram to the glassfull. The constant use of a good belt is recommended by the Professor.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

37. *Fatal Poisoning from Fifteen or Twenty Drops of the Essential Oil of Bitter Almonds.*—Dr. H. Graves Bull communicates the following case to the Editor of the *Provincial Medical and Surgical Journal*:—"On Monday morning, July 29th, I was sent for, in a great hurry, to see a woman who 'had taken something and was dying.' It was five minutes to eight o'clock when the messenger came, and before the hour had struck, I arrived with a stomach-pump at the bedside of the patient. I found her in a room at the top of the house. She was lying in her night-shift on the bed, quite insensible and scarcely alive. Her head was on a high pillow, bent over the chest, and hanging to the left side, as if by its own weight. The face was extremely livid, the lips were separated, the teeth clenched, and there was much froth about the mouth, running over the cheek. The eyes were half shut and glassy; the pupils rather dilated, and directed upwards; both were irregular, the left one particularly so; and the iris of both was immovable. The regular respiration had ceased, but at short intervals the chest was expanded by convulsive action. The action of the heart had not entirely ceased, but its pulsation was exceedingly feeble, indeed scarcely perceptible. I could not detect any pulse at the wrist. I did not notice any smell in the room on entering it, or whilst making the above observations. She had the appearance of a person dying from disease of the heart, apoplexy, or epilepsy, and I asked of the person there, how she knew that anything had been taken; and bid her look about for the bottle or cup it had been taken from, whilst I examined her. She found almost immediately a small half-ounce bottle, in a little reticule bag, which was hanging on a chair close by the bed-side. The bottle was corked, and the strings of the bag closely drawn up. It was distinctly labelled 'Essential oil of bitter almonds,' 'Poison,' and still contained about three drops. There was no vessel in the room out of which it could be taken. There was no appearance on the bed of vomiting having taken place.

"I immediately sent off the attendant for some ammonia and brandy, and took up the water-jug and dashed cold water over her repeatedly. This did not produce any visible effect, and I passed the œsophagus tube, and injected the remainder into the stomach, and quickly pumped it back again. On passing this tube down the throat, I first detected the bitter almond smell, but the whole room was filled with the odor as I pumped up the contents of the stomach. I injected about a quart of water, and brought as much back again of a pale straw-color, and only containing some small shreds of mucus. By this time a small quantity of brandy and sal volatile was brought, which I injected with cold water, and afterwards removed to inject a full dose of hot brandy and water, ammonia, and æther, as soon it could be procured. In the meantime I ordered the attendants to rub the limbs and surface of the body, which was rather cold, with flannels, whilst I endeavored to excite respiration. These efforts were continued for upwards of an hour, but without success. The convulsive action of the chest had ceased shortly after my arrival, and I never could detect a second time the least pulsation of the heart. I had no apparatus with me for maintaining artificial respiration for any length of time, and it probably would not have succeeded if I had.

"*Morbid Appearances.*—*Sectio cadaveris*, nine hours after death. The body was lying in the bed as it had been left, and had become rigid. The lividity had disappeared from the face, which now presented almost a natural appearance. The skin generally was mottled or marbled. The hands were not clenched, nor the finger-nails livid.

"The abdomen was rather full, but on opening its cavity, the general appearance of the organs was perfectly healthy. Neither the medical friend who was with me, nor myself, could detect the least almond smell, nor could we afterwards discover it in the cavities of the chest, the head, or the heart, nor yet in the venous blood, with which the system throughout seemed somewhat gorged. The external appearance of the stomach was natural, and after tying up the orifices, I removed it, with the contents, entire. The bowels were neither empty nor distended; the duodenum contained some food. The ascending colon was moderately distended with fæces; the descending colon and rectum were empty. The liver, spleen, pancreas, and mesenteric glands appeared natural. The left kidney was rather larger than the right, and contained a small cyst within its substance; the bladder contained about four ounces of ordinary urine; the uterus was of the usual impregnated size.

"I next opened the thorax; the lungs seemed remarkably healthy, and were without adhesions. The cavities of the pleura contained each about two or three ounces of pure serum, the pericardium about six drachms. The coronary veins of the heart were distended. The heart itself was small and firmly contracted. It was quite empty, containing neither blood nor fibrine. Its cavities were healthy, and its valves quite perfect. The blood in the venæ cavæ was coagulated, though not very firmly.

"On opening the cranium, the dura mater appeared quite natural, as was also the arachnoid, with the exception, perhaps, of a slight opacity of the sides of the brain, and in the course of the great vessels. There was a general effusion of serum over the surface of the hemispheres, but small in quantity, except at the vertex of the right hemisphere, where about a drachm of very pure transparent serum raised the arachnoid membrane, and widely separated the sides of the convolutions beneath. This effusion seemed quite recently thrown out, though it must have produced considerable pressure on the brain during life. There was a similar effusion on the left hemisphere, in nearly the corresponding situation, but not to so marked an extent, the quantity of serum effused not being more than half a drachm. There was effusion also in the ventricles, and at the base of the brain, but not to any great amount. The brain was large and firm, its vessels rather congested.

"On opening the stomach, it was found to contain three or four ounces of the fluid last injected, viz., brandy and water, æther and ammonia, with some mucus, but not a particle of solid matter. The bitter almond smell could be detected readily enough, but it was not at all strong. The lining membrane throughout was considerably congested (the large veins standing out very distinctly), particularly at the back part of the larger extremity. The follicular glands of the stomach were visible more or less distinctly throughout its whole surface, particularly near the pyloric orifice, where they were as large and distinct as millet seeds. There was a very slight extravasation of blood in one spot, but as this was in a situation corresponding with the cardiac orifice, it was probably occasioned by the end of the œsophagus tube.

"*Previous History.*—Catherine Preece, the subject of the above observations, was 49 years of age, unmarried, and small in stature and person. She was respectably connected, and had obtained considerable reputation for her general intelligence, and her skill as a cook and pastry-maker. For many months past her manner had at times been very strange and unaccountable, and in a six weeks' illness which she had a little before Christmas (suffering, the witness said at the inquest, from an 'affection on the stomach and nerves'), she had shown such decided symptoms of insanity, that the medical gentleman attending her had expressed his fears that it would soon be necessary to put her under restraint. Her spirits were at times very depressed, from not being able to obtain another situation. She had lost more than one, I have since heard, from intemperance.

"About three or four months since, Miss Preece called at a druggist's, to purchase some of the essential oil of bitter almonds for flavoring pastry, and named some persons for whom she was going to make it. She called three times before it was given her, and then received twenty drops, dropped by the hand from the full bottle, by the druggist himself, who gave her a particular caution about its dangerous properties. The drops were put into the half-ounce bottle found at her bed-side, and distinctly marked 'Poison.' It did not appear thal she had told any one of her purchase, and no one knew of her keeping it constantly by her. Since this time she had no situation, and had not been out to make pastry. For the three days previous to her death, she was visiting at the house of Mr. Caines, a writer in this city, to assist his wife and family in sewing. She seemed in pretty good spirits, and only complained on one occasion of being unable to get a situation. She eat her food pretty well, and did not drink anything but tea and water. Miss Caines slept with her every night, and on the morning of the deceased's death, got up a little after six o'clock while she was asleep, but she spoke to her before she went down stairs, and did not notice anything particular in her manner.

"About half-past seven o'clock, Mrs. and Miss Caines heard the deceased call out from her room (the doors being all open), 'Harriet! Harriet!' and then 'Mother! mother!' and they both went up stairs. On entering the room, they both smelt the odor of bitter almonds, and Mrs. Caines said to her interrogatively, 'Miss Preece! Miss Preece! you've been taking something?' The deceased threw her arms about as if in pain, and said, 'Where am I! Where am I! Oh! my brother!' and went off into strong convulsions, her face soon becoming very red. They were both much frightened, and went down to fetch a neighbor to see her, before they sent for me. Mrs. Caines thought that from fifteen to twenty minutes might have elapsed from the time of her calling out, until my arrival at the house, and it was probably rather more. A laudanum bottle was also found in the room, but it still contained about a drachm, and there was satisfactory proof that none had been taken.

"*The Quantity taken.*—The circumstantial evidence tends to show, that the quantity of the essential oil swallowed did not exceed seventeen drops, and I was very anxious to confirm this, as far as possible, by a careful examination of the fluids pumped up from the stomach. The quart of cold water, first injected and withdrawn, must have contained the principal amount of the oil taken, for the smell of bitter almonds in the fluids afterwards pumped up was very trifling in comparison. Of this fluid I took two ounces in a clean bottle I happened to have with me, and it was fortunate I did so, for the remainder was inadvertently thrown away shortly afterwards. If the estimate of the quantity taken was correct, each ounce of this fluid should contain about half a drop of the essential oil, allowing a little for the quantity remaining in the stomach, &c. I supposed it to be so, and then made a solution of this strength with the same essential oil taken by the woman, for the purpose of comparing them accurately together, and noticing the different effect of the re-agents on them. With one ounce of my solution, containing half a drop of essential oil, made with spirit and distilled water; and with one ounce of the solution as first pumped from the stomach, I made the following comparison:

"Observation 1. The *odor of bitter almonds* from my solution was much stronger than that pumped up from the stomach, but it must be observed here that the latter had been exposed to the air for some time, which might in a great measure account for this difference.

"Observation 2. A solution of *nitrate of silver*, with my solution of the essential oil, did not throw down any precipitate, though it rendered it a little opaque or turbid. With the solution from the stomach, it immediately produced a copious precipitate, which soon became violet-colored. I could not detect the least trace of cyanogen from this precipitate, which was no doubt owing to the organic matter in solution.

"Observation 3. The test *with solutions of caustic potash, sulphate of iron, and sulphuric acid*, for Prussian blue, used with my solution, gave a distinct well-marked shade of blue; used with the solution from the stomach, it did not produce any evident blue color at all.

"From the second ounce of the solution from the stomach, mixed with distilled water, I distilled over two drachms into the receiver, leaving the residue free from the almond odor or taste; and then added distilled water to make the ounce, which I again compared with my solution of the given strength of half a drop of the oil to the ounce.

"Observation 4. The odor was still very much stronger with my solution, than with that procured from the stomach.

"Observation 5. The nitrate of silver test did not show any distinctive effect, scarcely producing the least difference in either.

"Observation 6. The potash and iron test for Prussian blue, gave the solution a very distinct blue color, but it was not so deep a blue by a shade or two, as that again produced by my solution. The result of these experiments seems to show in every instance, that the solution from the stomach did not contain so much Prussic acid as the given solution of the essential oil; and therefore, *that the first quart of fluid pumped up from the stomach did not contain fifteen drops.*

"This conclusion is by no means satisfactorily proved, but where we are unable to obtain positive proof, we must rest satisfied with as close an approximation to it as we can procure, and my conviction of the near approach to it in the present instance is strongly confirmed by the fact of the result of the experiments coinciding with tolerably clear circumstantial evidence as to the quantity taken."

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38. *A Quack Doctor committed for Manslaughter.*—(From the *Times.*)—An inquest was held yesterday on the body of Mrs. Mary Harris (late of Aston Hall, Shropshire), before Mr. H. Churton, at Birkenhead, in consequence of the following certificate having been sent to the coroner:—"We, the undersigned medical officers of Birkenhead, at the request of Mr. Booth, the constable, have made inquiries relative to the death of Mrs. Mary Harris, of Aston Hall, near Wem, and find that the deceased was attended by a person of the name of Port, an unqualified practitioner residing at Tranmere, who professes to cure cancer without the aid of the knife. She died, after the application of two plasters, under symptoms such as might be produced by the absorption of arsenic. B. VAUGHAN, M.D., T. C. FAULKES, Surgeon."—The coroner issued his warrant for the disinterment of the body, which, after some difficulty, was obtained, and a jury was empannelled on the 4th inst., but adjourned to yesterday, in order to give time for the necessary inquiries and analysis to be made.—The facts in the certificate, briefly stated, were given in evidence by Dr. Vaughan and Mr. Faulkes, and they were clearly of opinion, that there were no marks of internal disease sufficient to cause death, except such as were the effects of some irritant poison. The whole of the internal viscera were healthy, with the exception of the lungs, which were slightly emphysematous. On the right breast, there was a large slough, about the size of a breakfast cup, extending about one inch into the substance of the flesh, and in this breast was a tumor, not partaking of a malignant character, about the size of a hazel nut. (This was the part treated by Mr. Port for cancer.) The breast, the stomach, and its contents, as well as several other portions of the viscera, were removed, and placed in the hands of Professor Brett, of the Liverpool School of Medicine, for the purpose of being analysed. Both witnesses were clearly of opinion, that death had been caused by some irritant poison, and that had arsenic been applied to the breast, it might have been absorbed into the system, and would have produced the appearances and symptoms which presented themselves.—Professor Brett stated, that he had made a careful analysis of the breast, the stomach, its contents, and the other portions of the viscera which had been delivered to him. He was, however, unable to detect arsenic in the internal portions of the body, or their contents; but, in the breast, he clearly discovered it. This he obtained by what is termed the silver test, Marsh's test not being delicate enough. He added, that, if arsenic had been applied externally to the breast of the deceased, it would be absorbed into the system, affect the stomach, and produce death; but that the period between the application and the death would entirely depend upon the susceptibility of the patient, and other circumstances.—Mr. Port offered to produce a number of persons, who were in attendance, and who, he stated, had been cured of cancer by the application of the same plasters. He also offered to produce, before the jury several cancers which had been extracted by them; but the coroner decided that,

such evidence could not be received.—The coroner, in summing up the case to the jury, said, if they believed the evidence laid before them, it was their duty to find Mr. Port guilty of Manslaughter.—The jury, after an hour's consultation, returned that verdict, and Mr. Port was forthwith committed under the coroner's warrant to take his trial at the next Chester Assizes.—[We understand the prisoner has amassed considerable property in the neighbourhood of Birkenhead by his practice as a medical man, vast numbers of persons having placed themselves under his treatment, including persons of rank and title, and much larger fees having been paid to him than would be given to regular and authorized practitioners. He at once admitted, before the Coroner, that he had no diploma as a medical man.]

39. *Symptoms of Poisoning by a Copper Coin.*—Dr. Bing, of Dettelbach, reports the following case:—A boy, of about three years of age, swallowed a copper coin. After some days, he became restless, sallow, complained of pain in the abdomen, great thirst, and sleeplessness. The author found the abdomen much distended and sensible to pressure, the tongue dry, want of appetite, obstruction of the bowels, pulse small, hard, and contracted; from these symptoms, he diagnosticated poisoning by copper. Thinking the chance of spontaneous expulsion of the coin to be somewhat doubtful, he preferred attempting to bring about its solution, and ordered, for this purpose, a powder, consisting of five grains of jalap, three grains of liver of sulphur, five grains of starch, and the same quantity of sugar, to be taken every three hours; he, also, recommended a beverage composed of milk and water, with sugar and white of egg; and prohibited all fat, salted, spiced, and acescent, food. After the patient had evacuated several times, his excrements were incinerated in a crucible, then mixed with a sufficient quantity of dilute nitric acid, and digested in the sand-bath. The liquid was then filtered, and tested by a solution of ferrocyanate of potass, and liquor ammon. caust. The former re-agent occasioned a *reddish brown* precipitate, the latter gave the liquid a *blue* color. A piece of polished steel, dipped into the liquid, was quickly covered with a strong coating of copper. Thus, the presence of copper was clearly shown. When the patient had continued the above powders for some time, he gained a better appearance; his appetite returned; his evacuations became regular: and now he enjoys his former good health."—*Dr. Bing im Baier. Medic. Correspondenzblatt.*

MISCELLANEA.

40. *Punishment of Quacks in Olden Times.*—At a period when Quackery is prevailing to such an unprecedented extent amongst us, it may be of advantage to indicate some of the punishments that were formerly inflicted in England on these impudent impostors. We copy the following instances which we find recorded in a recent number of the *Provincial Medical and Surgical Journal*:—

"In Edward the Sixth's reign, one Grig, a poulterer, in Surrey, was set in the pillory at Croydon, and again in the Borough of Southwark, during the time of the fair, for cheating people out of their money, by pretending to cure them by charms, by only looking at the patient, or by casting his water.

"In the reign of the first James, the council dispatched a warrant to the magistrates of the city of London, to take up all reputed empirics, and bring them before the censors of the college, to examine how properly qualified they were to be trusted either with the limbs or lives of his Majesty's subjects.

"Dr. Lamb, a most noted quack, and who had got a large fortune by his pretended medicines, was at last obliged to confess he knew nothing of physic.

"Read and Woodhouse, two other contemporary quacks, were likewise brought to justice, and acknowledged the same.

"In Stowe's Chronicle we meet with a relation of a water-caster being set on horseback, his face to the horse's tail, which he held in his hand, with a collar of urinals about his neck, led by the hangman through the city, whipped, branded, and then banished.

"Fairfax was fined and imprisoned in King William's time for doing great damage to several persons by his 'Aqua Celestis;' also one Anthony, with his 'Aurum Potabile;' Arthur Dee, for advertising medicines which he gave out would cure people of all diseases; Foster for selling a powder for the green sickness; Aires for selling purging sugar-plums; and Tenant, a urine-caster, who sold his pills at a pound each. Hunt was punished for putting up bills in the streets for the cure of diseases; and Philips, a distiller, for selling strong waters, inserting in the directions what they were good for, and how persons were to take them."

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41. *Death of Doctor Abercrombie.*—We regret exceedingly to have to announce the decease of this great physician and truly excellent man, who died at Edinburgh on the 21st of November last, of Apoplexy. Dr. Abercrombie was the Queen's Physician for Scotland, and, we believe, at the period of his death, President of the Royal Philosophical Society of Edinburgh.

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42. *French Academy of Sciences.*—Monsieur Ballard was elected a member of the Chemical Section of the Academy of Sciences, at Paris, on the 11th Nov. Dr. B. is successor to the celebrated D'Arcet, and had for his competitors Messieurs Fremy, Peligot, Cahours and Millon.

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43. *Opinion of the College of Physicians of Edinburgh in regard to the Suppression of Quackery.*—As the sentiments which it expresses in regard to legal interference with Quackery, coincide with our own; and as the action of the New York Legislature at its last session in relation to this subject, has rendered it one of interest to the profession in this State; we copy from a contemporary one of a series of Resolutions adopted by the Royal College of Physicians of Edinburgh relative to Sir James Graham's celebrated Bill "For the better regulation of Medical Practice in Great Britain:"—

"*Resolution 5th.* That the college have, with regret, observed that the part of the bill which proposes to abolish the practice of prosecuting unlicensed and unqualified practitioners, has given rise to great alarm and a good deal of opposition. The college are inclined to doubt the practicability of restraining unlicensed practice by penal enactments, or the expediency of attempting to do so by such means, and in this view they are strengthened by the fact, that such powers, although vested in some of the public bodies in Scotland, have for many years been allowed to lie dormant without any practical inconvenience. But notwithstanding that these are the sentiments of the college, yet, if it shall appear that it is the desire of a large proportion of the intelligent members of the profession, to attempt to restrain such practitioners by penal enactments, rather than endanger the final success of a measure otherwise so beneficial, the college are disposed not to urge strongly their own opinions on this head."

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44. *Public Charnel-house at Frankfort.*—There has existed at Frankfort, since the year 1828, a public charnel-house, which was established by the Municipal authorities for the purpose of receiving and guarding dead bodies, until the period when evident signs of putrefaction shall have manifested themselves. The laudable object of this public establishment is to prevent premature interment of persons who may be only apparently dead, or in a state of lethargy. Each subject, as it is brought in, is placed in a separate cell, on a convenient bed, and the atmosphere is always kept at a suitable temperature; gloves are placed on both hands of the corpse, having attached to them a small cord which communicates with a bell hung in an adjoining room where attendants are stationed night and day. These attendants are selected with great care, and must possess a certain

degree of instruction before they are eligible to the office; they are under the constant and close surveillance of the authorities. Should any of the subjects here deposited give the slightest evidence of returning animation, they are immediately transported into a room denominated *Salle de résurrection*, where every attention is paid them by those in attendance, until the physician to the institution can arrive. It is optional with the citizens of Frankfort to send their friends' bodies to this place or not; very many, however, avail themselves of it.

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45. *Sir James Graham's Medical Bill.*—We copy from the *Montreal Medical Gazette* the following abstract of Sir James Graham's celebrated "Bill," which has produced such a violent commotion amongst our professional brethren on the other side of the water: "The preamble says,—'Whereas it is for the good of all Her Majesty's subjects that the knowledge of physic and surgery should be promoted, and that means should be afforded whereby those who have been examined and found skilful by competent authority may be known from ignorant and unskilful pretenders to the same knowledge: and whereas the laws now in force concerning the profession of physic and surgery require to be amended, be it enacted,' &c.

"The first clause goes on to enact the repeal of various existing statutes bearing on the medical profession, and 'so much of any act or charter granted before the passing of this act as prohibits any person from practising physic or surgery in any place, or as imposes any restriction on the practice of physic and surgery other than is contained in this act.'

"2. Proposes to establish a "Council of Health, and Medical Education, to be composed, 1st, of the Regius Professors of the Universities of Oxford, Cambridge, Dublin, Edinburgh, and Glasgow; 2d, of a physician and surgeon, to be chosen respectively by each of the Colleges of Physicians and the Colleges of Surgeons of England, Ireland, and Scotland; and 3d, by six other persons to be appointed by the Queen—one to be a principal Secretary of State, who shall be President *ex-officio.*

"(From Clause 2 to 13 refers to the Constitution and Regulations of the Council.)

"13. Council to keep and publish a register of all who produce qualifications to practise as a physician, a surgeon, or a licentiate in medicine and surgery; £5 to be paid by physicians and surgeons for registration, and £2 by the licentiate; such sums to be applied to defray the expenses of carrying out the act. Names and qualifications to be forwarded in January each year.

"Licentiates in medicine and surgery to be twenty-one years old, and to have been examined by the colleges in either country, but if in England by the Apothecaries Company also.

"15. None, with certain exceptions, to be registered as surgeon unless twenty-five years old, and examined, on showing that he had applied to surgical studies for five years.

"16. Physicians to be registered if twenty-six years old, and graduates in medicine of some British, Irish, or foreign university, after five years medical studies. Foreign graduates to be first certified by some of the colleges.

"17. Relates to registering as physicians and surgeons.

"18. Physician and surgeon registered after examination to be associate of the college in which he has had his diploma, and, on removal to either part of the United Kingdom, to be an associate of the college of that part without further examination.

"19. Each college to give the council its curriculum when called upon; council empowered to make such changes as it may deem necessary to equalize the qualification and the fees necessary for examination.

"20. Hereafter no degree in the faculty of medicine to be given unless the person matriculated in the same university, and attended medical instruction in it for two years next before the granting of the degree.

"21. Lawful for any university to grant the degree of Bachelors in the Faculty of Medicine to persons twenty-two years old, who have otherwise pursued certain studies.

"22. No bye-laws of any of the colleges to be valid until approved of by the Council of Health.

"23. The students at the several hospitals and medical schools to be registered as directed by council—fees not to exceed 10s. each, and to be remitted to council.—No hospital or school to be recognized which neglects this registration.

"24. Relates to the examining bodies.

"25. Authorizes the council to depute its secretary or any member to attend at the examinations, and to ascertain if the regulations in respect to them and to qualification have been adhered to.

"26. After passing of the act, no person except registered as above, to be 'appointed to any medical or surgical office in any public hospital, prison, infirmary, dispensary, workhouse, or other institution,' or in the Army or Navy, or East India Service. Council can proceed to specify what such public offices are.

"27. Exempts all so registered from serving on juries, and none else are evidence on medical or surgical subjects in courts of law.

"28. Lawful for council, within twelve months, to register any physician, surgeon, or apothecary, on production of diploma or certificate; and

"29 and 30. All who, after the passing of the act, appointed to and practice in, any public, medical, or surgical office, are liable to a penalty of £20, and none but registered persons, or those who can show that they were legally practising when the act passed, can recover at law, for professional attendance, or 'for any medicines prescribed or administered.'

"31. Persons falsely pretending to be registered liable to fine and imprisonment, as court may award."

46. *Death and Funeral of Dr. Dalton.*—On Monday, August 12th, the funeral of the celebrated Dr. Dalton took place at Manchester. Dr. Dalton, whose name will ever be associated with the discovery of "the atomic theory," died at the beginning of last week, at the advanced age of seventy-eight. The mayor and corporation joined with the scientific friends of the late Dr. Dalton in giving public testimony to his worth, and no less than one hundred private carriages, including that of the corporation, and the various societies in the town, formed a part of the procession to the Ardwick Cemetery, where his remains were interred. The shops and warehouses in the line of road to the place of interment were losed, manifesting a marked desire to pay every respect to the philosopher's memory.—*Lancet.*

2.

American Medical Intelligence.

Cachexia Africana; or the Habits and Effects of Dirt-eating in the Negro Race.—We find in a late number of the *New Orleans Medical Journal*, an interesting and well written article on this subject, by Dr. W. M. Carpenter, of the Louisiana Medical College, and we regret that its length precludes the possibility of our giving our readers the benefit of *all* the valuable information which it contains—to do so we should be obliged to re-publish the article entire. We have endeavored, however, so to abridge it as to retain its most important parts. This curious malady, although described by various English and French writers in the West Indies, seems to have been almost entirely neglected by our own authors, until the publication of this paper by Dr. Carpenter.

"The name Cachexia Africana has been applied by several writers, to the habit of dirt-eating, and to the remarkable group of symptoms observed to accompany it, in the negroes of some hot climates, and of which the negro-race seems to be the exclusive victims. The French of the West Indies, call it by the title of 'Mal d'Estomac.' The name 'Cachexia Africana,' though not altogether unobjectionable, I think it best to retain, as it is now used by common consent, to express the affection under consideration."

"Notwithstanding the comparatively frequent occurrence of this affection, among the colored population of the Southern States, it seems to have been entirely overlooked or disregarded by our medical writers; and young physicians beginning their career in the South, relying upon their College education and reference to books of practice, will generally be under obligations to either the negro or his owner for any information or insight into the nature of cases of this kind.

"This, I confess to have been the case with myself, when, in 1836, I first met, in practice, with a victim of this strange malady. Luckily, for me, it was one of the very rare instances in which the negro confessed his habit of dirt-eating, and this at once threw light on the remarkable chain of symptoms and appearances, which could not fail to have been noticed, by even a casual observer, which would have appeared incongruous, and have been anomalous, without the starting-point furnished by the confession of the patient. The man died in about two months from the time I first saw him, and the *sectio cadaveris* revealed, in a striking manner, the lesions which gave rise to the symptoms which had been the subject of my careful observation during the progress of the case.

"Having had my interest aroused by this opportune case, I have, since, lost no opportunity of seeing the disease, and studying it in all its bearings.

"In the different parts of the State, which I have visited since that time, I have met with numerous cases, and a considerable number have come under my own treatment. Many cases have come under my observation in New Orleans, but they have generally belonged to plantations in the neighbourhood, or have been sent from those of the lowland districts, for the purpose of being treated here. Altogether I have particularly examined nearly a hundred negroes of different ages and sexes, affected by this disease, a very small number in comparison to that met with in the practice of some physicians residing in regions where it is most prevalent. In every case dying under my care, or under circumstances that rendered a post-mortem examination practicable, I have pursued my researches respecting the pathology of the affection. The result of my observations, I submit to the profession, fully aware of their imperfection, and of the unsatisfactory nature of the conclusions, which, on some points, I have ventured to express. This I do with a view of soliciting something more definite, from those residing in regions, where this affection prevails most extensively; and in hopes that physicians may be induced to investigate the subject more extensively, and that we may hereafter be enlightened in regard to the etiology and treatment of this strange disease.

" *Symptoms.*—The initial and essential feature of this disease, is a depraved appetite, causing an invincible craving for earthy substances; and so strong is this desire, that it generally triumphs over every effort to prevent the practice: and such is the indomitable force of the habit, that neither bolts, nor bars, nor punishment, nor the certainty that it will inevitably end in death, can in any measure prevent their indulging in it.—'The only appreciable signs of mental activity,' says Dr. Craigin, 'exhibited during the course of this disease, are the crafty and cunning plans which the patient most subtly matures, and as stealthily executes, to procure the desired repast.' They usually fix upon one article, as preferable to the rest, but in its absence will readily indulge in those at hand.—The articles most frequently eaten are clay, mud, dried mortar, plaster, lime, dust, ashes, shells, chalk, tobacco pipes, slate, bricks, sand, rotten wood, rags, hair and some other unnatural substances.—Mr. Hunter states that, in Jamaica, 'they are fondest of a kind of white clay, like tobacco-pipe-clay, with which they fill their mouths, and allow it to dissolve gradually; and express as much satisfaction from it as the greatest lover of tobacco could do.' In Surinam, Dr. Craigin found they generally preferred to eat the fossil shells, of which a bed lay near the surface; and the streets of the towns were made and repaired with the same material.—

" As the symptoms, resulting from or accompanying dirt-eating, are trivial in the beginning, and very slowly progressive; and as they only come under the observation of the physician in the latter stages, and after a considerable lapse of time, when they have assumed a serious aspect; it becomes difficult to determine what is the order in which they appear.—On inquiry, however, it will generally be ascertained, that the first symptoms that attracted the notice of the patient, are those indicative of more or less serious derangement of the digestive functions. The bowels are irregular in their action; in some cases habitually constipated, in others the constipation alternates with spells of diarrhœa. Heart-burn and flatulency are common symptoms at this stage; and many patients complain of loss of appetite, or of vomiting after their meals.—In some cases there is slight fever occasionally, or sensations of burning in the palm of the hands and the feet.—The patient, at this early stage, frequently begins to exhibit an inclination to avoid effort of any kind, skulks from work, and sometimes pleads indisposition; but as he conceals the true nature of the case, looks as well as usual, and can only designate a slight derangement of the bowels, or some other disorder of an apparently unimportant nature, his plea is generally heard with suspicion, or rejected.—

" This state of things continues for some time; the disease pursues its insidious course; the patient retains a degree of embonpoint which might easily delude the observer in regard to the gravity of the case.—A closer examination, however, will reveal the extensive lesions that exist in the structure or functions of the vital organs.—

" The whole body has a full, and rather œdematous appearance; and the skin is dry, sometimes smooth, but more frequently scurfy or furfuraceous, and it generally has a turgid or shining look.—The face has a peculiar tumid but flabby fulness: and those portions of the body which usually abound in fat, retain their full appearance, though they are wanting in their ordinary elastic resistance. The muscular parts of the arms and legs still have their roundness, but feel soft and flabby. The feet, ankles, and hands are almost always œdematous, pit under pressure of the finger, and retain the impression after the removal of the force. Dr. Craigin observed, in some cases, and in some parts of the body, a peculiar state which he compared to the condition of the tissues in elephantiasis, in consequence of the elasticity of the integuments and of the subcutaneous tissues.

—There is, however, one trait in elephantiasis that I have not seen in this disease and that is, the hypertrophy of the skin itself; for though the subcutaneous tissues are often hypertrophied without œdema, yet the skin in a great measure retains its thinness.—The eye is prominent, being rendered so by the abundance of the adipose tissues of the orbit; and the lids are often puffy or œdematous. The eye has generally a languid, unmeaning look, devoid of vivacity.—The conjunctiva has generally a snowy white or dirty yellow and jaundiced appearance; Dr. Craigin says, that in all the cases he saw in Surinam, it was 'of a peculiar snowy whiteness, untinged by a particle of red blood.' This condition, however, is by no means universal here, and the jaundiced appearance exists in a large number of the cases. The palms of the hands, and soles of the feet, are strikingly white and pale; the lips, gums, and the whole mucous membrane of the mouth, are remarkably pale and anœmic, and the 'tongue which in health performs its duty with so much alacrity, lies bleached and bloodless, scarcely able to represent the motives of its owner.'

"These symptoms are referable to an anœmic condition, or rather to a condition characterized by a great deficiency of the red globules of the blood. In several cases, blood was drawn, and it always presented the same characters, but varying in degree. In general it has a thin but turbid appearance; the globules having a peculiar purplish color, somewhat like that of pale claret lees; and floating perceptibly apart, separate, or in little groups, in the large mass of serum. The proportion of clot to the mass of blood is remarkably small, though the organic solid matters of the serum are, in quantity, as great, or even above, the ordinary standard.—I regret not to be able to give exact numerical data respecting the quantities of the elements of the blood in these cases, as I only analyzed the blood in one case, and my notes on this analysis have been mislaid. In this case the solid matter of the clot was less in weight than that obtained by Andral and Gavarret from the blood of chlorotics; the solid organic matters of the serum, on the contrary, were abundant, and the serum coagulated at a temperature of 153° of Faht.—

"The patient is excessively dull; sometimes stupid almost to idiocy; is very susceptible to the influence of cold, and 'delights to bask in the sun's rays,' or to hang over a fire, even in the hottest days of summer.

"As the disease progresses, function after function becomes deranged, and soon the physiological balance is completely destroyed. Cutaneous transpiration is almost completely suspended, the urine is sometimes diminished, but in other cases greatly augmented in quantity, and there is often an irritable state of the bladder, which is exceedingly troublesome, in consequence of its giving rise to repeated calls to urinate, which are so urgent and painful in some cases, that the patient has not time to walk a few steps, or even to get out of bed, before the urine is discharged. In two or three cases that have come under my observation, this condition existed to such a degree as to amount to absolute incontinence, but apparently, without any paralysis about the neck of the bladder, and depending solely on the intolerance of the bladder to the presence of urine. Some of these patients have assured me, that they were obliged to micturate twenty and thirty times in the course of the night; others that they had calls of the same kind every few minutes, and being worn down by the disturbance, they no longer got up, but had made provisions which prevented the necessity of rising. In women there is generally suppression of the catamenia, which, in some cases, however, are generally reëstablished whenever there is for a short time an improvement of the general condition.

"Instead of the constipation, which is the most common condition of the bowels in the earlier periods of the disease, we have in this advanced stage, almost incessant diarrhœa. The stools are of variable consistence, and pale or yellowish, sometimes mixed with mucus or pus, or streaked with blood. The abdomen is not generally tender when pressed, but is generally flaccid or tympanitic; and the mesenteric glands can rarely be felt.

"The disinclination to exercise now amounts to actual lethargy; and the slightest exertion, such as walking a short distance or even rising up, produces an overpowering sense of fatigue and lassitude, attended by an oppression of respiration, painful palpitations of the heart, which are often audible to the bystander; the carotid and temporal arteries beat strongly, and a distressing throbbing is felt in the head.

"The patient is completely overcome by any attempt to walk up an acclivity, and when obliged to perform any labor that requires active exertion, or to walk briskly, particularly when it is hot, will sometimes sink suddenly to the ground overpowered and exhausted, and sometimes in a state of suffocation or of syncope.

"When the patient is quiet, these painful feelings are relieved or diminished, though the dyspnœa still continues to some extent, the heart's action remains laborious, and in some cases the painful throbbing in the head disturbs and almost prevents sleep at night. I have seen cases in which this symptom causes more distress and complaint than all others; and some, if not all, thus affected, died suddenly at night, I suspect, from effusion upon the serous surfaces or in the ventricles of the brain.

"Notwithstanding, however, that the visible signs of disorder are diminished by rest, careful auscultation easily detects the important functional or structural lesions which, according to my observation, invariably attend upon the advanced stages of this disease. The pulse is, in general, rather small, but tense, and varies in frequency from 80 to 120 a minute. In two or three cases, I observed pulsation of the jugular veins which were synchronous with the pulse, and, in these cases, thought that the signs afforded by auscultation, indicated hypertrophy of the ventricles and dilatation of the auricles: in one case, my diagnosis was confirmed by post mortem examination; one of the others is still living, and I hope to know the condition in case of her death, which can scarcely fail to take place soon.

"The derangements of the heart's action seem, in the earlier stages of the disease, to be sympathetic, or perhaps dependent on an irritable condition of that organ; but as the disease progresses, changes soon take place in the structure of that organ, and in the latter stages auscultation almost invariably indicates the existence of structural lesions of the heart or its appendages. In no instance have the post mortem examinations failed to confirm the indications afforded by auscultation, of the existence of these lesions.

"The examination of the respiration generally affords no very decided results. The dyspnœa which in some cases amounts almost to an asthmatic state, is generally aggravated by a horizontal position, especially when lying on the back, and is sometimes so urgent as to require that the patient should be propped up in bed continually. This dyspnœa, however, seems to depend upon the cardiac lesion, and no corresponding sign can generally be detected in the function of the lungs. The respiratory murmur is sometimes wanting over small portions of the chest; the mucous râle is frequently heard, but there seems to be nothing constant or definite in the condition of the lungs.

"With the heart it is different. Its impulse is generally very strong, and can be distinctly perceived in some cases, over the entire chest; and though its sounds and impulse are increased by exercise, they retain, when the patient has been long at rest, a degree of energy much greater than in the normal state. The *bruit de soufflet* is a common symptom, and indeed may be said to be rarely absent.

"In hot weather, the symptoms are generally aggravated; the bowels are more deranged, the heart more irritable, and the disturbance of the circulation greater, the dyspnœa more urgent, the extremities become œdematous, and menstruation in the women ceases. It is consequently in summer, that the disease, when left to pursue its course, naturally tends to a fatal termination. This, however, is not the case, in perhaps a majority of the cases; for as far as my observation extends, the greater number go off in winter; not from the immediate effects of the disease, but from attacks of acute diseases, particularly acute pleurisy and pericarditis.

"Cool weather is highly favorable in its effects on the general course of this disease, and I have seen several cases in which there appeared to be a complete restoration of the health in winter; the patient would seem well, be able to perform active work, and in women the catamenia become restored. I have known several women thus affected, who become pregnant, and bore children during the existence of this improved condition. It is probable that, in cases in which the habit had not been continued so long as to produce important lesions of the heart, and other organs, the amelioration of the symptoms, resulting from favorable weather, might became permanent, if the habit could be broken. The respite, however, generally terminates soon after hot weather sets in, the next summer; the symptoms soon assume a more formidable character than before the respite, and a brief period brings the fatal end.

"The winter, however, though so favorable to the general health and condition of these patients, abridges the existence of many of them, by favoring the production of the acute maladies, referred to above, to which this condition seems to predispose.

"Dr. Craigin describes a feature in this disease, as occurring in Surinam, which I have not met with in this country, and am inclined to the belief that it was not properly a symptom of the affection under consideration, but was accidental or engrafted from some other, perhaps leprosy, which is common in that region. The difference of color between these ulcers and those of leprosy, may depend upon the peculiar state of the constitution of the patients.—I will give his observations in his own words, supposing that others may meet with similar appearances. 'Peculiar to children,' he observes, 'under the age of 10 or 12 years, and late in the course of this disease, a state of ulceration often comes on, mostly confined to the cuticle and cutis vera of the feet, legs, and thighs, but sometimes the nates, as well as the hands and arms, are also affected. I seldom had an opportunity of noticing the progress of this ulceration until it had established itself in the true skin. It appears, however, from observation and inquiry, that at the commencement, one or more small whitish and nearly round spots are observed about the ankles and feet, which somewhat resemble the first appearance of that also frequent and fatal disease, the "lepra," with which, however, it has no real connexion; the spots in the disease under consideration are of a deadly pale cast or ash color, while those of leprosy assume a more lively and cupreous redness. These spots or discolorations become daily more evident, until at length the cuticle gives way, others successively appear, and advancing in the same manner, also ulcerate. The number of ulcers is, in some instances, very great, from the constant accessions, while none are disposed to cicatrize; and in other and very severe cases, the whole number does not exceed three or four.'—

"These ulcers gradually increase in circumference and depth till the cutis vera is penetrated; some of them are at length confluent, others remain unconnected, and in the most loathsome cases, the feet, legs, thighs, and sometimes the nates, present one broad surface of ulcers, some small, and others running into each other, forming patches of greater or less extent.

"When this ulcerative process commences, there is frequently mixed with the fæces a small quantity of blood, and in one case which I saw, attended with prolapsus ani, the lower part of the rectum was thickly studded with ulcers, small, but in other respects similar to those situated externally.

"These ulcers of the skin are of the indolent kind; they have no raised or bordered edge, and actually discharge but little, their surfaces being kept moistened by a colorless and apparently bland fluid, with no palpable sign of granulation."

"*Causes.*—There has been much contrariety of opinion among authors respecting the causes which give rise to the habit of dirt-eating, and the condition of the constitution which accompanies it in negroes. In chlorosis and pregnancy, the disposition to eat chalk and clay probably arises from excessive acidity or some other derangement of the gastric secretions: in the affection under consideration, the habit of dirt-eating precedes the gastric derangements; and it is only after the habit has been indulged in for a considerable length of time, that heartburn or any other symptom arises that would indicate such a state of the secretions of the stomach.

"Unwholesome and insufficient food seems to have been generally regarded as one of the causes which may induce the habit; and Mr. Mason designates prolonged abstinence, or irregularity in eating. 'The persons,' he remarks, 'most exposed to these privations are fugitive negroes, who have absconded from their homes, and lead a wandering and necessarily watchful life, without any certain or constant means of subsistence; and the indolent negroes who, from mere laziness, neglect the cultivation of their provision grounds, are thereby exposed to similar wants. These last sometimes resort to the practice designedly to produce ill health, as a means of evading work.' That improper or inadequate food is not the sole or perhaps the principal cause of this affection, is I think sufficiently established by the fact, that on several plantations, which are proverbial for the excellency of the fare of the negroes, there are, at this time, almost as many cases in proportion to the whole number of slaves, as can be found on those on which the number of cases has been attributed to bad feeding and severe treatment."

"Flat, swampy and insalubrious regions seem to predispose to this disease; for though we meet with occasional isolated cases on plantations of the higher and rolling lands of this State, the disease, in these districts, is rarely seen affecting a large number of negroes on the same plantation, as is sometimes the case in low and unhealthy sections of the country. There are many plantations situated on the banks of the rivers and bayous of this State, on which so many cases have occurred, as sometimes to create alarm, and, in one or two instances, to cause the desertion of the places. Instances of its extensive prevalence on plantations are common on Bayou Lafourche, though they are said to have been much more so some years ago. On the Bayou Bœuf, particularly in the parish of Rapides, it seems now to be causing great mortality, and on the banks of the Mississippi River, and the Téche, instances have likewise come to my knowledge.

"That the influence of example may be one of the means which causes the extension of this habit, is rendered probable by the circumstances, that when it gets a footing on a plantation situated on the low lands, the cases are apt to multiply; and it is frequently the case that most of the individuals who acquire it, are in the habit of associating together, or are united by closer ties. This influence, however, would probably be more apt to operate when the fare is inadequate to the sustenance of the body, and when the earthy substances are swallowed to allay the cravings of hunger. This, however, is a state of things which I have never witnessed among our slave population, and which I can scarcely imagine to exist in this land of abundance. Young negroes, however, take up the habit from imitating their parents, or older negroes, and the children readily acquire it from each other in the same way."

"The first thing that attracts notice in making post mortem examinations of these cases, is a peculiarly pale and anœmatous appearance of the muscular tissues. The adipose tissues, so far from being much reduced in quantity below the usual standard, are generally abundant, filling up the spaces usually occupied by it, between the muscles and other organs, and giving to the body and limbs a rounded and plump appearance.

"The contents of the abdomen present the same pale appearance as the muscles, but even in a more remarkable degree; the stomach being white and flaccid, the lining membrane appearing soft, but possessing in fact its ordinary consistency, and is poorly supplied with blood-vessels, excepting, sometimes, a few small distinct patches, which are vascular and reddened, and sometimes slightly ecchymosed. The intestinal canal partakes throughout of a similar general aspect; is pale and thin, and sometimes presents a remarkably diaphanous or almost transparent appearance. This character appears more striking in the small intestines, though it is sometimes equally so in the colon. Scattered at considerable distance apart, along the intestines, the reddish patches are discernible, and in one or two cases I have detected ulcerated patches, which were more common in, though not confined to, the large intestines. These ulcerated patches by no means correspond to the glands of Peyer and Brunner, but appear to be merely spaces from which the epithelium was removed. The glands above mentioned exhibited signs of irritation and engorgement in several cases, and it is probable that they may be ulcerated in some. The mesenteric glands were enlarged in some cases, and in one case, several of them contained tuberculous deposits; in this case, however, tubercles also existed in the lungs. The liver and spleen were each enlarged in some cases, but in others appeared nearly natural; and the gall bladder varied, as usual in chronic cases, in its dimensions, and the quantity and color of its contents, but presented nothing special or worthy of remark. The kidneys, which I expected, from the symptoms of some of the cases, to find altered, were apparently of a normal size and consistence. The bladder, I have several times found to exhibit traces of inflammation about the neck, and extending along the urethra. The womb, in the case of a woman who had only been delivered about a month before, was about three and a half inches long, and remarkably white and granular in its structure, and very friable.

"The earthy matters cannot invariably or perhaps generally be detected in the alimentary canal, which may be accounted for, by the circumstance that in many cases, severe diarrhœas precede their fatal termination, and remove all of these matters which are not impacted in the intestinal pouches, or concretions which cannot readily pass through the narrower portions. In those cases, however, which terminate suddenly, in consequence of acute attacks or other accidents, without having been subject to severe diarrhœas, the earthy matters are generally detected with ease. In some cases it is found in grains or fragments, dispersed through the fæcal matters, but in others they are more or less agglomerated by mucus in different portions of the canal; and in one case I found the earthy matter (aluminous clay,) occupying three or four of the sinuses of the colon, in the form of hard concretions, which fitted the shape of the pouches so nicely as not to be easily removed. The surfaces of these concretions, which presented towards the canal, were smooth and covered by an envelope of tenacious mucus, probably left by the fæces when traversing it, and this mucus seemed to be continuous into the substance of the concretions, which indeed appeared to have increased in size by particles of earth lodged in, and being cemented to the masses by mucus. The abdominal serous tissues do not seem to be generally the seat of any remarkable changes, though the cavity frequently contains more than the ordinary quantity of serum.

"The contents of the thorax exhibit the most important pathological changes. The lungs themselves are not generally diseased, and we only find in them lesions, arising from influences in a great measure independent of this disease, and such as are frequently found accidentally coexisting with other diseases, such as engorgements, hepatization, tubercles, &c. The pleura, however, very frequently shows marks of old or recent inflammations, in the form of adhesions of the surface, false membranes, or effusions into the pleural cavities. The pericardium, likewise, almost invariably exhibits similar traces of inflammation, and its cavity contains an unusually large, sometimes immense quantity of fluid, of a disagreeable odor, and with or without flocculi. The heart or its appendages, I have never failed to find diseased. One or both ventricles are generally found hypertrophied, sometimes enormously so; and the auricles are sometimes dilated. There seems to be no constancy in the relations between the hypertrophied condition of the ventricles and the dilatation of the auricles. The muscular tissue of the ventricles is always paler than natural, and even when hypertrophied has a flabby look and feel, and there is an evident want of that firmness of structure which naturally characterizes this muscle. Another singular condition, which existed in a remarkable degree in two cases examined by me, in a somewhat less degree in one other case, and which may in fact be observed to some extent in most of these cases, was the accumulation of fat about the heart, and in the tissues of the thoracic septum. In several cases, the fat has been abundant about the base of the heart, occupying the tissues about the auricles and base of the ventricles, though not appearing, in any extent, to penetrate the muscular tissues, but lying over the surface or occupying depressions, and forming large bunches, which are sometimes connected round in such a manner as to constitute a prominent collar-like mass, surrounding the base of the heart, and partly enveloping the auricles.

As this condition coexisted, in each of the cases in which the development of the fatty masses was greatest, with dilatation of one or other of the auricles, it might be supposed to have caused this dilatation, by obstructing the free passage of the blood from the auricles to the ventricles; this, however, can only be established by a greater number of observations. It would perhaps be supposed, too, that this lesion should occasion some marked modifications in the cardiac sounds, but though careful auscultation was practised in each case, I was not led, in either of them, to suspect anything more than a degree of hypertrophy of the ventricles with more or less dilatation of the auricles. Of the eight well marked cases that I have examined after death, three exhibited hypertrophy of both ventricles; two hypertrophy of both ventricles, dilatation of the right auricle, with a considerable hypertrophy of the adipose tissues of the base of the heart; one hypertrophy of the right, and slight hypertrophy of the left ventricle, dilatation of the right auricle, hypertrophy of the fat at the base."

"*Treatment.*—The primary indication, in this as in all other diseases, is to remove the cause, which gives rise to the symptoms which we are to combat. This is by far the most difficult part of the treatment, but as it is absolutely essential, nothing should be left untried that offers a chance of success. Some persons, viewing the habit as voluntary crime, rather than an irresistible propensity, arising from disease, have employed the most severe measures in order to break the negroes of it. This treatment cannot be too strongly deprecated, as it is evidently founded on erroneous ideas of the nature of the affection, and experience has shown its inutility. Others have resorted to confinement in tight rooms, in stocks, and to other means; but these are likewise objectionable, from the circumstance that they deprive the patient of pure air and exercise, which in the early stages of the affection are important means of bringing about a better state of the general health, thus promoting the action of other means. All the advantages, without the disadvantages of this plan, may be obtained by causing the patient to wear a close wire mask secured by a lock which prevents him from eating improper substances, and yet allows of free exercise. This is the principal means of prevention employed in the West Indies, and I am informed that it has been adopted to advantage in some parts of this State. Instances have come to my knowledge, in which other habits have been substituted by perseverance, for that of dirt-eating; for example, they have been induced to chew tobacco, and have sometimes stopped the other habit as soon as the new one became established.

"One of the most important measures, not only in reclaiming the subjects from the habit, but in relieving them of the cachectic state, is the establishment of an appropriate system of diet."

"Next in importance to a proper diet, in these cases, certainly stands a change of air, to a higher region or at least to a healthy one; and if a change to the seashore is practicable, it is to be preferred. In cases in which this has been practised, they have almost invariably improved, and the improvement, in some cases, seems to have been permanent.

"Upon these means of improving the general health our principal chance of cure depends; and in some favorable cases nothing more is required. Edwards, in his History of the West Indies, says, 'the best and only remedy is kind usage and wholesome animal food; and perhaps a steel drink may be of some service.'

"In regard to the medical treatment, we must be directed by general principles, in the application of remedies directed against the conditions which give rise to the groups of symptoms. Thus, with a view of removing the chlorosed state, tonics will be proper, particularly the preparation of iron; and the aromatic stimulants, especially cinnamon, canella alba, or winter's bark. The bitter tonics may be beneficial in some cases; among these, the best will probably be quassia, simarouba, cusparia or gentian. If cathartics should be required, rhubarb seems to fulfil the indications in this particular case, and has been most generally recommended.

"The acute inflammations which frequently attack the pericardium and pleura, generally yield promptly to local depletion, and the distress arising from the tumultuous action of the heart is generally much diminished by the same means; indeed, notwithstanding the thin state of the blood, I have never seen small local depletions act more favorably than in these inflammations; blisters may perhaps be applied in some cases with advantage, but it has appeared to me, in the one or two cases in which I used them, that they rather increased the effusions into the serous cavities, particularly into the pericardium. Hydrocyanic acid, and digitalis, by allaying the inordinate action of the heart, greatly promote the comfort, and perhaps improve the general condition of the patient."

[COMMUNICATED.]

Mott's Operation for the exsection of the Inferior Maxillary Bone.—We had the pleasure, a short time since, of witnessing this truly formidable operation by Professor Mott. The case was that of a periosteal disease, in a fine intelligent young man, in this city, whose heroic deportment greatly facilitated the operation. As a preliminary step the common carotid of the right side was secured, immediately after which, as the patient seemed in no way prostrated, it was deemed advisable to continue, and with the curvilinear incision the operation commenced, and throughout its entire steps gave the utmost satisfaction to all who were present. The exsection was made from the second incisor tooth to the temporo-maxillary articulation; the parts were then drawn together by sutures, and the patient was placed in bed, where he soon fell into a profound sleep. It is now more than a month since this operation was performed, and we learn, with pleasure, that the patient is doing remarkably well. We are also informed that this is the third case in which Dr. Mott has successfully extirpated the jaw at the articulation.

Amputation in the Prairies.—The following case of successful amputation on one of our western wilds, has been going the rounds of the journals; we insert it here, as it furnishes another to the many evidences which we already possess, of the great resources of nature, which, under the most adverse circumstances, is capable of accomplishing so many unexpected and surprising results:

"A few days before the caravan had reached Walnut Creek, a Mr. Broadus, in attempting to draw his rifle from a wagon, muzzle foremost, discharged its contents into his arm. The bone being dreadfully shattered, the unfortunate man was advised to submit to an amputation at once; otherwise, it being in the month of August, and excessively warm, mortification would soon ensue. But Broadus obstinately refused to consent to this course, till death began to stare him in the face. By this time, however, the whole arm had become gangrened, some spots having already appeared above the place where the operation should have been performed. The invalid's case was therefore considered perfectly hopeless, and he was given up by all his comrades, who thought of little less than to consign him to the grave. But being unwilling to resign himself to the fate which appeared frowning over him, without a last effort, he obtained the consent of two or three of the party, who undertook to amputate his arm, merely to gratify the wishes of the dying man, for in such a light they viewed him. The only 'case of instruments' consisted of a handsaw, a butcher's knife, and a large iron bolt. The teeth of the saw being considered too coarse, they went to work and soon had a set of fine teeth filed on the back. The knife having been whetted keen, and the bolt laid upon the fire, they commenced the operation; and in less time than it takes to tell it, the arm was opened round to the bone, which was almost in an instant sawed off, and with the whizzing hot iron, the whole stump was so effectually seared as to close the arteries completely. Bandages were now applied, and the company proceeded on their journey as though nothing had occurred. The arm commenced healing rapidly, and in a few weeks the patient was sound and well, and is perhaps still living to bear witness to the superiority of the 'hot-iron' over ligatures in 'taking up' arteries."—*Gregg's Commerce of the Prairies.*

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Assistant-Surgeons in the Navy.—We are truly gratified to learn that the Secretary of the Navy has, at length, yielded to the earnest solicitations of the numerous friends of the medical department of that branch of our public service, and issued an order to the effect, that Assistant-Surgeons shall henceforth enjoy the privileges of ward-room officers, and be entitled to a defined rank, equivalent in grade to that of the army Assistant-Surgeons. We are surprised that this simple act of justice should have been so long delayed, and congratulate our friends amongst those interested, who will now occupy a position on board ship entitling them by *right* to the consideration and civility which has heretofore been extended to them only through the *courtesy* of their brother-officers.

—

New York Medical and Surgical Society.—At the last anniversary meeting of this Society, an interesting address was delivered by Dr. A. C. Post, on "The Modern Discoveries and Improvements in Medical Science." At the same meeting the following gentlemen were appointed officers for the ensuing year: Dr. J. A. Swett, *President*, Dr. H. Green, *Vice President*, and Drs. Maxwell and Dubois, *Secretary* and *Treasurer.*

New York Medical Schools.—We are highly gratified to learn, on inquiry, that the present condition of our Medical Schools is most flattering. The number of students in attendance at both of the Colleges is six hundred, and we can vouch from personal observation, that they are as attentive and gentlemanly a set of young men as we have ever seen assembled within any halls of learning. Their manly deportment and general appearance present a striking contrast with that of the rough and uncouth *Provincials*, who resort to some of the European schools, particularly that of Paris. These remarks in regard to those of New York apply equally to the students in attendance on the Philadelphia colleges, whose quiet and becoming demeanor we had a recent opportunity of noticing, and which evince that, both here and there, they all belong to the same class of respectable citizens.

The schools of New York and Philadelphia now have, and we hope will always deserve to retain, the most prominent position amongst the medical institutions of our country.

The late Dr. Forry.—Shortly after the decease of the late lamented Dr. Forry, a meeting of the medical profession of New York was called at the City Hospital. At the indicated time, this meeting was organized by the appointment of Dr. John Francis, as President, and Dr. J. H. Griscom, as Secretary. In opening the meeting and expounding its objects, the venerable chairman dwelt feelingly on the loss that the medical profession had sustained in the death of Dr. Forry, who was to be regretted both as a friend and companion, and as a writer on medical science. The following Preamble and Resolutions were then proposed by Dr. Hosack and adopted :—

"Whereas, By the dispensation of an overruling Providence, Samuel Forry, M.D., has been removed from among us by death, in the vigor of his life, and in the midst of his usefulness; and whereas, some testimony of respect is due to the memory of one who had devoted the energies of his intellect to the advancement of medical science, with an enthusiasm equalled only by the industry and singleness of purpose with which it was pursued, and under which he ultimately sank—a martyr to his unwearied zeal—and whereas, it is proper that the profession of which Dr. Forry was so distinguished a member, should record a suitable expression of the estimation in which it holds his untiring devotion to the promotion of science: therefore

"*Resolved*, That we sincerely deplore the loss which the community, as well as the profession, has sustained by his premature death, in the plenitude of his usefulness, induced by the unremitting exercise of his intellectual energies.

"*Resolved*, That the zeal and devotedness which marked his favorite pursuits, and which distinguished him as a member of the medical profession, entitle his memory to be held in the highest respect, and that we will ever cherish for him that esteem which his eminent talents and acquirements so justly demand, and which elevated him to so high a rank among his professional brethren.

"*Resolved*, As a suitable external mark of our respect for the memory of the deceased, we will wear crape on the left arm for the space of thirty days; and that means be taken for the erection of a suitable monument over his remains, interred in Greenwood Cemetery.

"*Resolved*, That an attested copy of these proceedings be sent to the relatives of the deceased, and published in the daily papers, and in the *New York Medical Journal*."

In pursuance of these Resolutions, the Committee was then appointed to "devise means for erecting a suitable monument over his remains." This Committee, we are happy to learn, has met with unexpected success, and found their endeavors in furtherance of the object for which they were appointed, to meet with every encouragement on the part of the profession, which has responded to their call with generous and liberal contributions. We are authorized to state that a very considerable proportion of the sum required for the monument has been already subscribed.

Resolutions of the New York Pathological Society, on the occasion of the death of Dr. Forry.—At a meeting of the N. Y. Pathological Society, held Nov. 12, 1844, the following resolutions were passed unanimously:

"*Resolved*, That this Society has received with deep regret, the melancholy intelligence of the decease of their late member Doctor Samuel Forry.

"*Resolved*, That in his premature death, the country has lost a rising genius of whom it was justly proud; our science a zealous and intelligent investigator, from the continuation of whose important researches much might have been anticipated, of the greatest advantage to it, and of deep interest to humanity.

"*Resolved*, That, in testimony of our respect for his memory, our approbation of his multifarious and valuable labors, of his indefatigable industry, and of the elevated position to which, as an author, he so speedily attained, honorable alike to his country, his profession and himself, we will cause these resolutions to be entered upon the Journal of the Society, and request that a copy of them be published in the ensuing number of the periodical which he so ably edited.

Signed, G. A. SABINE, M.D.
2d vice Prest.

Wm. C. Roberts, M.D., *Sec.*

We understand that resolutions of a similar purport with the foregoing, were likewise adopted by the New York Historical Society, of which Doctor Forry was also a member.

Resolutions Complimentary to Dr. WAGSTAFF. *Private Medical Instruction.*—It affords us pleasure to comply with the request of Dr. Wagstaff's students, as contained in the last of the appended resolutions, and we avail ourselves of the opportunity presented to congratulate the profession and students on the rapid increase of the facilities afforded them for gaining practical knowledge through private Lectures. Private courses are now being delivered, or have been during the present session, on Anatomy with dissections; Midwifery; Diseases of the Heart and Lungs; and Lithotripsy, with Diseases of the Genito-Urinary Organs. We sincerely hope that private instructors for all the branches of medicine and surgery may ere long be established amongst us. The system has been found abroad to work better than any other, and we are happy to add, that the intelligent gentlemen connected with both the schools in this city, with whom we have conversed on the subject, are decidedly in favor of it.

"At the close of Dr. Wagstaff's Lectures, the students, anxious to express their high approbation and affectionate regard for his disinterested kindness, appointed a committee to draft resolutions; and at an adjourned meeting, the following were unanimously adopted.

Resolved, That the very excellent Lectures, recently delivered on obstetric science, by Dr. Wm. R. Wagstaff, of this city, merit, and we hereby offer him our most grateful thanks for the same.

Resolved, That delighted and instructed as we have been by his lectures, we respectfully ask a continuance of them if consistent with his convenience.

Resolved, That these resolutions be signed by the Chairman and Secretary, and transmitted to Dr. Wagstaff; and that a copy of the same be sent to the Editor of the New York Journal of Medicine, with the request that they may be inserted in the forthcoming number of that journal.

THOS. D. WASHBURN, *Chairman.*

G. W. CLIPPINGER, *Secretary.*

New York, Dec. 21, 1844.

Publisher's Threat.—We notice on the cover of one of our contemporaries, the following very *decided hint*, addressed to their subscribers by the publishers of the Journal.

"*To Subscribers.*—We regret to find that, notwithstanding unusual expenditures upon the present volume of this Journal and its very material improvement, our subscribers have this year been more than usually remiss. We would give notice that all who may not remit promptly shall be forthwith and constantly harassed with every form of dun until they are worried out. Their names shall appear in a black list on the back of the Journal, and, simultaneously, they shall be called upon and persecuted by duns of every kind, travelling agents, local agents, constables, sheriffs, and catchpoles. We are shamefully deprived of our dues, and we mean to have justice done us."

Compliment to Dr. Lee.—We see by one of our Western papers, that a series of Resolutions were adopted by the Medical Class of Geneva College, at the close of the late session, highly complimentary to their Professor of Materia Medica—expressive of regard and esteem for him personally, and gratefully acknowledging the solicitude which he has invariably manifested for their improvement.

Election of Dr. Patterson to the Presidency of the American Philosophical Society.—We learn, with pleasure, that Dr. Robert M. Patterson, President of the United States Mint, and formerly Professor in the University of Virginia, has been elected President of the American Philosophical Society, in place of the late venerable Peter S. Duponceau, who had for so long a period presided over that learned body as its chief officer. Dr. Patterson is well known as an accomplished gentleman and finished scholar, and we are confident that the society could not have selected a more worthy successor to Franklin, Jefferson, Patterson, Wistar, and its other distinguished Presidents. Although educated as a Physician, Dr. Patterson has long since retired from active practice, and devoted himself with commendable zeal to the dischaage of his duties as chief officer of the Mint, and to literary and scientific pursuits generally.

The Southern Medical and Surgical Journal.—We take pleasure in acknowledging the receipt of the first number of a new series of the *Southern Medical and Surgical Journal*, edited by Drs. Paul F. Eve, and J. W. Garvin, members of the Faculty of the Medical College of Georgia, at Augusta. The Journal is issued monthly, and if we may be allowed to judge from the present number, is likely to prove, under the direction of the gentlemen who have assumed the care of editing it, a highly useful and valuable addition to the list of our Medical periodicals. We hail its re-appearance as a good omen, and welcome it "as a lost brother who has been found."

The Health of the Clergy.—A premium of twenty dollars for the best essay, on the "*Importance of good health in ministers of the gospel, and the proper means of securing it*," is offered by "a Lady," in the Protestant and Herald newspaper. The sum has been placed in the hands of the Rev. W. L. Breckenridge, who, with the Rev. E. P. Humphrey, and Dr. L. P. Yandell, is designated by the fair giver to judge of the essays that may be offered, and award the prize. Mr. Breckenridge has given notice through the same paper, that the committee "will receive any communications which may be offered, free of cost, until after the first of January next, immediately after which the premium will be awarded to the one deemed most worthy of it."

A prize held out by such a hand, for such an object, ought to bring forth a crowd of competitors.—*Western Journal of Medicine and Surgery.*

Drawing Teeth in Africa.—Every man in Africa is his own dentist, says the Liberia Herald. When a person wishes to get rid of a bad tooth, it is brought about in the following manner. A fine, strong cord is made of the fibres of the palm leaf—one end of which is fastened securely round the defective tooth. To the other end is tied a stone, weighing from eight to ten pounds—which is lifted up at arms' length and then let fall. The troublesome member is out in a twinkling—much quicker, at all events, than it could be extracted by any instrument, in civilized hands—and that is the end of the operation.—*Amer. Journal and Library of Dental Science.*

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Principles of Forensic Medicine. By W. A. Guy, M.D. Cantab. Prof. of Forensic Medicine, King's College, Lond.: Physician to King's Coll. Hospital, &c. First Am. Edition, with notes and additions. By Charles A. Lee, M.D., &c. 8vo., pp. 711. Harper & Brothers. New York. 1845. 250

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Art. XVIII.—A Practical Treatise on the Diseases of the Respiratory Organs, including Diseases of the Larynx, Trachea, Lungs, and Pleura. By Charles J. B. Williams, M.D., F.R.S., etc.; with numerous additions and notes, by Meredith Clymer, M.D., Physician to the Philadelphia Hospital, etc., with wood-cut illustrations. Phil.: Lea & Blanchard, 1845. 8vo. pp. 508. 265

Art. XIX.—Remarks on the Influence of Mental Excitement upon Health. By A. Brigham, M.D., Superintendent and Physician of the State Lunatic Asylum, Utica, N. Y. Third edition. Phil.: 1845. 12mo. pp. 204. 266

Art. XX.—The Principles of Surgery. By James Miller, F.R.S., E.F. R., C.S.E., Professor of Surgery in the University of Edinburgh, Surgeon to the Royal Infirmary, &c. &c. Phil.: Lea & Blanchard, 1845. 8vo. pp. 518. . . . . ib.

Art. XXI.—The Retrospect of Practical Medicine and Surgery; being a half-yearly journal, containing a Retrospective View of every Discovery and Practical Improvement in the Medical Sciences. Edited by W. Braithwaite, Surgeon, &c. No. X. July to January, 1844. American edition. New York: Daniel Adee, 107 Fulton street. 1845. 8vo. pp. 231. 267

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Translated from the Dutch, by P. F. H. Fromberg; with an Introdnction, by J. F. W. Johnston, F.R.S.; with notes, &c., by B. Silliman, Jr. Vol. 1; Part 1; No. 1. New York: Wiley & Putnum. 1845. . . 268

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TO READERS AND CORRESPONDENTS.

Several communications, received at too late a period for insertion in the present number, will find place in our next, which closes the fourth volume and second year of the Journal. The commencement of a new volume, will furnish a suitable occasion for the announcement of future plans and purposes; we are authorized, however, to state that no material change is contemplated in the management of the Journal; it will continue to be independent—the chronicler of all the important medical intelligence of the day, and the repository of original communications of a practical character.

We acknowledge the receipt of the following works:

A Treatise on Poisons in relation to Medical Jurisprudence, Physiology, and the Practice of Physic. By Robert Christison, M.D., F.R.S.E., Prof. of Mat. Medica in the University of Edinburgh, &c. First Am. Edition, from the 4th Eng. Edition. Phil.: Barrington & Haswell. 1845. Part I. 8vo., pp. 400. (From the Publishers.)

Principles of Forensic Medicine. By William A. Guy, M. B. Cantab., Fellow of the Royal College of Physicians, Prof. of Forensic Medicine, King's College, &c., &c. First Am. Edition. With Notes and Additions, by Charles A. Lee, M.D., Professor of General Pathology and Materia Medica in Geneva College, &c. New York: Harper & Brothers. 1845. 8vo., pp. 711. (From the Publishers.)

Researches on Scrofulous Diseases. By J. G. A. Lugol, D.M.P., Physician to the Hospital of St. Louis, &c. Translated from the French, by A. Sidney Doane, A.M., M.D. With an Appendix, comprising Formulæ for the Treatment of Scrofula. New York: J. S. Redfield. 1845. 12mo., pp. 276. (From the Publisher.)

A Practical Treatise on the Diseases peculiar to Women, illustrated by cases derived from hospital and private practice. By Samuel Ashwell, M.D., Member of the Royal College of Physicians, London, &c. First Am. Edition. With Notes, by Paul B. Goddard, M.D. Phil.: Lea & Blanchard. 1845. 8vo., pp. 520. (From the Publishers.)

A Treatise on the Diseases and Special Hygiene of Females. By Colombat de L'Isere. Translated from the French, with additions, by Charles D. Meigs, M.D., Prof. of Midwifery and the Diseases of Women and Children, in Jefferson Med. College, Philadelphia, &c., &c. With wood-cut illustrations. Phil.: Lea & Blanchard. 8vo. pp. 719. (From the Publishers.)

A Practical Treatise on the Diseases of the Respiratory Organs; including Diseases of the Larynx, Trachea, Lungs and Pleura. By Charles J. B. Williams, M.D., F.R.S., &c. With numerous additions and Notes, by Meredith Clymer, M.D., Physician to the Phil. Hospital, &c. With wood-cut illustrations. Phil.: Lea & Blanchard. 1845. 8vo., pp. 508. (From the Publishers.)

The Principles of Surgery. By James Miller, F.R.S.E., F.R.C.S.E., Prof. of Surgery in the University of Edinburgh, &c. Phil.: Lea & Blanchard. 1840. 8vo., pp. 525.

Observations on the Structure and Diseases of the Testis; with numerous plates. By Sir Astley Cooper, Bart., F.R.S., &c. From the 2d Lond. Edition. Edited by Bransby B. Cooper, F.R.S., Surgeon of Guy's Hospital, &c. Phil.: Lea & Blanchard. Royal 8vo., pp. 247. (From the Publishers.)

The Anatomy of the Thymus Gland; with numerous plates. By Sir Astley Cooper, Bart., F.R.S. Phil.; Lea & Blanchard. 1845. Royal 8vo., pp. 37. (From the Publishers.)

Medical Jurisprudence. By Alfred S. Taylor, Lecturer on Medical Jurisprudence and Chemistry. Edited, with Notes and Additions, by R. E. Griffith, M.D., &c. Phil.: Lea & Blanchard. 8vo., pp. 539. (From the Publishers.)

Elements of Comparative Anatomy; designed especially for the use of Students. By RUDOLPH WAGNER, M.D., Prof. of Comp. Anat. and Physiology, in the University of Gottingen. Edited by ALFRED TULK, Member of the Royal College of Surgeons. Parts I., II. The Anatomy of the Mammalia (complete). New York: J. S. Redfield. 1844. pp. 64. (From the Publisher.)

Report of the Medical Missionary Society in China, containing a general survey of its operations from March, 1843, to June, 1844. Published by the Committee. Macao. 1844. 8vo., pamphlet, pp. 34. (From D. J. MacGowan, M.D.)

Lectures on Animal Heat. By THOMAS SPENCER, M.D., Professor of the Institutes and Practice of Medicine in the Medical Institution of Geneva College. Published by the Class. Geneva, New York: Ira & Stephen H. Parker. 1845. 12mo., pp. 114. (From the Author.)

Braithwaite's Retrospect of Practical Medicine and Surgery. Part X. Am. Edition. New York: Daniel Adee, 107 Fulton st. 1845. 8vo., pp. 232. With an Index for all the back numbers (gratis). (From the Publisher.)

Twenty-Fourth Annual Report of the Bloomingdale Asylum for the Insane, for the year 1844. New York: 1845. 8vo., pamphlet, pp. 55. (From Dr. P. Earle, Physician to the Asylum.)

The Sanatory Condition of the Laboring Population of New York; with Suggestions for its Improvement. A Discourse delivered on the 30th Dec., 1844, at the Repository of the Am. Institute. By JOHN H. GRISCOM, M.D., Physician of the New York Hospital, &c. New York: Harper & Brothers. 1845. pp. 58. (From the Author.)

The Chemistry of Vegetable and Animal Physiology. By Dr. G. S. Mulder, Prof. of Chemistry in the University of Utrecht. Translated from the French, by P. F. H. Fromberg. With an Introduction, by Prof. J. F. W. JOHNSTON, F.R.S., &c. 1st Am. Edition. With Notes and corrections, by B. SILLIMAN, JR. Vol. I., Part I., No. I. New York: Wiley & Putnam. 1845. 12mo., pp. 78. (From the Publishers.)

Vestiges of the Natural History of Creation. New York: Wiley & Putnam. 12mo., pp. 291. (From the Publishers.)

Hydropathy; or, the Water Cure. Its Principles, Modes of Treatment, &c. Illustrated with many cases. By JOEL SHEW, M.D. Second Edition, revised and enlarged. New York: Wiley & Putnam. 12mo., pp. 360. (From the Publishers.)

The Cyclopædia of Practical Medicine. Parts XXI., XXII., XXIII., XXIV. (complete). (From the Publishers.)

Annual Catalogue and Circular of the Willoughby University. Medical Department. January, 1845. Painesville, Ohio. (From the Faculty.)

Miss Martineau's Letters on Mesmerism. New York: Harper & Brothers. Pamphlet, pp. 27. (From the Publishers.)

Annual Circular of the College of Physicians and Surgeons, No. 67 Crosby street, for 1844–5.

Observations on the Best Means of Preserving the Teeth. By M. LEVETT, Dentist. New York: 1845. pp. 24. (From the Author.)

The Annual Address delivered before the National Institute, at Washington, January 15, 1845. By Hon. LEVI WOODBURY. Washington: 1845. 8vo., pp. 35.

The Reciprocal Duties and Obligations of the Medical Profession and the Public. An Introductory Lecture, delivered at the Rush Medical College, at the commencement of the Session 1844–5. By AUSTIN FLINT, Prof. of the Inst. and Practice of Medicine. Chicago: 1844. 8vo., pp. 29. (From the Author.)

☞ Various other publications have been received, which will be acknowledged in our next number.

The following Medical Journals have been received in Exchange:

The British and Foreign Medical Review.
The London Medical Times.
The Dublin Medical Press.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.

The Medical News.
The Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal and Library of Dental Science.
The American Journal of Insanity.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publisher, Henry G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of H. G. Langley, New York. Persons at a distance, may direct parcels paid as above, under care of Barrington & Haswell, Philadelphia, W. D. Ticknor & Co., Boston, and Wiley & Putnam, London.

☞ Postmasters, it will be borne in mind, are authorized by law to frank letters containing money for the subscription of periodicals.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR MARCH, 1845.

PART FIRST.

Original Communications.

Art. I.—*History of Medical Legislation in the State of New York.* By Charles B. Coventry, M. D., Professor of Midwifery and Medical Jurisprudence in the Medical Institution of Geneva College.

The law passed by the last Legislature repealing the former law which prohibited any person from practising medicine without a license, has attracted so much attention, and elicited so much discussion, and is indeed a matter of such vital importance to the profession and community, that a few observations on the provisions of that act, and the existing law regulating the practice of medicine in this State, cannot be inappropriate.

The law regulating the practice of physic and surgery, as it exists at present in this State, is extremely complicated, made up of portions of separate acts passed by different Legislatures, the provisions of one act often appearing to conflict with the provisions of a preceding act, so that to a person who has not watched the successive changes, it is difficult, if not impossible, to understand the provisions of the present law. As an evidence of this obscurity, we have the fact that the State and County Societies have not unfrequently been compelled to apply to the Attorney General to explain the law, from the diversity of opinion as to the powers of the medical societies under the present law. I am aware that the impression is very general, that under the act of May last, all former acts were repealed, and that by this act the medical law is reduced to great simplicity, placing all, whether licensed or not, on a footing of equality. Both these propositions are believed to be erroneous; the previous law was not repealed, except so far as it conflicted with the provisions of that act, and the act itself (as we shall see) is very far from placing licensed and unlicensed practitioners on a footing of equality in the eyes of the law. A brief history of the legislation on the subject will not be without interest, and will aid us in elucidating the law as it now exists.

In almost every country making pretensions to civilisation, laws have been passed, regulating the practice of medicine. The laws affecting the practice and study of medicine, are of two kinds; the one to encourage the cultivation and study of the science, by furnishing the necessary facilities, by the establishment and endowment of colleges for instruction, and in some countries, by establishing professorships at the expense of government, as in France. In some countries, certain exclusive privileges were granted to such corporations, as is the case with the royal colleges of physicians and surgeons in London. The others were such laws as fixed the length of the time of study, the course of study and the ordeal through which the student should pass in order to obtain a license to practise, and forbidding all persons from practising under certain penalties who had not previously obtained such license. The former were to aid and assist the student in acquiring a thorough knowledge of his profession; the other to protect the community against ignorant and unqualified pretenders.

The first act regulating the practice of medicine in the Colony of New York, was passed in June, 1760, entitled "An Act to regulate the practice of Physic and Surgery in the City of New York." The preamble states that "Whereas many ignorant and unskilful persons in physic and surgery, in order to gain subsistence, do take upon themselves to administer physic and practise surgery in the city of New York, to the endangering of the lives and limbs of their patients, and many poor and ignorant persons who have been persuaded to become their patients, have been great sufferers thereby." It was enacted that after the publication of this, no person whatsoever should practise as a physician or surgeon in the city of New York, before he had been first examined in physic and surgery and approved of and admitted by one of his Majesty's council, the Judges of the Supreme Court, the Attorney General, and the Mayor, for the time being, or by any three of them, taking to their assistance for such examination such person or persons as they in their discretion shall think fit. If the candidate be approved, the examiners were to give them a certificate to that effect; which certificate constituted a license to practise physic or surgery, or both, throughout the province of New York. A penalty of five pounds, with costs of suit, was imposed for a violation of this act.

The peculiarity of this act was that other than medical men were constituted the judges and examiners of those soliciting a license; true, they were authorized to take to their aid other persons, but this was optional. We cannot suppose the examinations were very efficient, when the examiners themselves were necessarily ignorant of the subject.

After the revolution, the first act passed to regulate the practice of the profession was in 1792; like the act of 1760, its operation was limited to the city. The preamble sets forth that "many ignorant and unskilful persons presume to practise physic and surgery within the city and county of New York, to the detriment and hazard of the lives and limbs of the citizens thereof," &c.

This law requires two years' study with some respectable physician, if the student is a graduate of an incorporated college in the United States, and three years if he is not. 2d. An examination before the Governor, Chancellor, the Judges of the Supreme Court, the Attorney General, the Mayor and Recorder of the city of New York, or any two of them, who are to take to their assistance any three reputable practitioners with whom the examined person has not lived. The certificate of this board constituted a license to practise, and the penalty for violation was inability to collect pay for professional services. This law, however, was not to affect persons already in practice, those who had the degree of doctor of medicine, nor to prevent physicians from neighboring States or counties being called in consultation. It will be noticed that, like the act of 1760, its operation was confined to the city and county of New York, and that in both the preamble sets forth that it is to *protect the community* against *ignorant* and *unqualified* practitioners.

The first general act whose provisions extended throughout the whole State was passed on the 23d of March, 1797. The first section ordains that from and after the 1st of October, 1797, no person now practising physic or surgery, or both, shall be allowed to continue to do so unless he shall have produced satisfactory evidence to one of the officers mentioned in the previous act, that he has practised physic and surgery for the term of two years next preceding the day aforesaid, or shall, in a similar manner, exhibit evidences of having studied medicine for the term of two years. Either of the above magistrates were authorized to grant a certificate, which certificate was to be filed in the office of the clerk of the county where he resides. The penalty for practising without such a filed certificate was twenty-five dollars. The second section applied to the student, and declares that after the above date, he should not be allowed to practise unless he exhibited to either of the above magistrates, a certificate from one or more reputable physicians or surgeons with whom he has studied, stating that he had studied medicine for four years, and that he was well qualified to practise. The person or persons signing the certificates were to make oath to the same, and the magistrate was to endorse on it a permit, allowing the individual to practise. This certificate was also to be filed in the clerk's office. Graduates of literary colleges were required to study but three years, and bachelors and doctors of medicine were permitted to practise on filing their diploma.*

In all these regulations, two objects seem to have been kept prominently before the Legislature, viz., to *elevate* the *profession*, and to protect the community against the imposition of *empirics*. It was left for the wisdom of more modern legislators to discover that, to elevate the medical profession by encouragement was injustice to the rest of the community, and that to protect the lives and health of the people from ignorant empiricism, was to trespass upon their "unalienable rights." Although the above was in many respects an improvement on the former law in its extension throughout the whole State, and in fixing the term of study at four years, still there was one serious defect, viz., omitting the test of an examination, and granting a license simply upon the certificate of the instructor. In the year 1806 was passed the celebrated law for the incorporation of Medical Societies, and regulating the practice of Physic and Surgery.

This act is the foundation of all subsequent legislation upon the subject, if we except the act of last spring. This act was characterized by the important changes it made in the profession, by its clearness and efficiency, as well as by the violent opposition which it met in its passage through the Legislature. The main features of this act were, that the Physicians and Surgeons of each County in the State, if not less than five, should meet on the first Thursday of July and form themselves into a Medical Society; that a State Society should be formed by delegates from the several County Societies; that each County Society should form a Board of Censors, which Board should alone have the power of granting licenses, and that the student should exhibit satisfactory evidence of having studied medicine three years before he was admitted to an examination. The power of granting licenses was thus taken from the judiciary and placed under the control of the medical profession, where it legitimately belonged. It is understood that the project of this law first originated with the Physicians of the County of Saratoga, and that the venerable Doct. John Stearns, if not the originator,was one of the earliest and ablest advocates of the law. As has been stated, the passage of this law (strange as it may now seem) met with the most strenuous opposition. Fortunately, Doct. Alexander Sheldon, of Montgomery County, one of the Committee appointed to prosecute the application, was, this year, chosen Speaker of the Assembly. Doct. Stearns, in his account of the passage of the bill, says: "The dangers to which the tranquillity of the State would be exposed by the incorporation of forty distinct associations of physicians were so manifest by the opposition and the impression thereby made upon the House was so great, that but feeble hopes were entertained of its success. At this critical juncture, when a decisive vote against the bill was every moment expected to be taken, the late Hon. William W. Van Ness rose its most eloquent and powerful advocate; and, perhaps, the pre-eminent powers of his parliamentary eloquence were never exerted with better effect. He refuted the arguments of the opposition, portrayed the benefits to the profession and to the public in such glowing colors, and with so much energy and zeal, that the opposition became feeble; the friends of the bill increased, and from that moment the successful issue was rendered certain. To his memory do the profession owe a monument of marble with their gratitude deeply engraved upon its tablet." Such is the interesting account given of the passage of this important bill by Doct. Stearns; and how honorably does the course and language of Judge Van Ness contrast with that of the Honorable Senator who introduced and advocated the bill of last spring!

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* But three Medical Institutions, viz. Philadelphia College, Col. Col. and Harvard, the act of 1792 was repealed.

Unfortunately there was no Van Ness in the Senate to protect the profession from this abuse. By the Act of 1806, the only penalty for not complying with the law was an inability to collect pay for services. In 1807, some additional details were passed for regulating the internal concerns of the Societies, and a penalty of $5 00 per month was imposed for practising without a license. This, however, was not to prevent a person from using or applying for the benefit of the sick any roots or herbs, the growth of the United States. This laid the foundation of the absurd law making a distinction between native and foreign articles of Materia Medica, and which effectually nullified the preceding clause with the penalty attached.

In 1809, it was enacted, that the degree of Doctor of Medicine, granted by the Regents of the University, should constitute a license to practise physic and surgery. In 1812, the penalty for practising without a license was increased to $25 for each offence; and the license was required to be filed in the county clerk's office.

On the revision of the law in 1813, the several Acts of 1806, 1807, 1809, and 1812, were consolidated into one, with the exception of such provisions as had been repealed or rendered nugatory by the succeeding Acts. As the Act of 1813 is in full force, and still constitutes a part of the Medical law of this State, so far as the organization and powers of the Medical Societies are concerned, it will be proper to notice some of its provisions.

The Preamble states that, " Whereas, well-regulated Medical Societies have been found to contribute to the diffusion of true science, and particularly the knowledge of the healing art, therefore,

" Be it enacted, &c."

The first section goes on to state, that the physicians and surgeons in the several counties in this State, now authorized by law to practise their several professions, may form themselves into Societies, and that such Societies shall constitute corporations. Section 2d, That the Medical Societies of counties already incorporated shall continue to be bodies corporate ; that they shall have the ordinary powers of such bodies, and that the president, vice-president, secretary, and treasurer of such Societies, shall hold their offices for one year, and until others are elected in their places.

§ 3. Directs that the State Medical Society shall continue a corporate body ; that it shall be composed of one delegate from each county society, who shall meet together at the place and time appointed by the said society for that purpose, and being not less than fifteen in number, may elect officers, who shall hold their offices for one year, and until others shall be appointed.

§ 4. Empowers them to fix and determine the places and times of their meeting, and the day so agreed upon shall for ever thereafter be the anniversary day of holding their respective meetings; and it is made the duty of the secretaries of the respective Societies to file a copy of such proceedings in the Clerk's office of the county and of the State Society in the office of the Secretary of State.

§ 9. Empowers the Societies to examine all students who shall present themselves for that purpose, and to grant a diploma under the signature of the president and seal of the Society, which diploma shall authorize the person to whom it is given, to practise physic or surgery, or both, in any part of the State.

§ 10. Gives the power of appeal from the County to the State Society.

§ 11. Empowers the Societies to appoint not less than three, nor more than five Censors, whose duty it shall be to examine students.

§ 13. Enacts that it may be lawful for the Societies to hold real and personal estate, provided such estate does not exceed $1000 for the County Societies, or $1000 for the State Society.

§ 14. " And be it further enacted, that it shall be lawful for the respective Societies to make such by-laws and regulations relative to the affairs, concerns, and property of said Societies, relative to the admission and expulsion of members, relative to such donations or contributions as they, or a majority of the members at their annual meeting, shall think fit and proper. Provided that such by-laws, rules, and regulations made by the Society of the State of New York, be not contrary to, nor inconsistent with, the constitution and laws of this State or of the United States ; and that the by-laws, rules, and regulations of the several County Societies shall not be repugnant to the by-laws, rules, and regulations of the Medical Society of the State of New York, nor contrary to, nor inconsistent with, the constitution of this State or of the United States."

The following sections simply point out the manner in which the business shall be conducted, &c., and the fee which the Societies shall receive for their diploma, which is $10 to the county Societies and $10 to the State Societies.

By the Act of 1813, the student was required to study three years, but in 1818 it was enacted that, after the 1st of May, 1821, he should study four years. With the following exceptions one year might be deducted, if he had attended classical studies for that period of time after he was sixteen years of age, or had attended one full course of medical lectures in an incorporated medical college; but no person was to be licensed who had not arrived at the age of twenty-one years. In 1818, it was also required that the student should file a certificate of the time of commencing his studies. In 1819 it was directed that no college of physicians and surgeons in this State should confer the degree of Doctor of Medicine upon any student, unless such student had complied with the general regulations, and, in addition, had attended one complete course of all the lectures delivered in the College granting the diploma. The Acts of 1818 and 1819 being merged in the general regulations passed in 1827, the law regulating the practice of physic and surgery in this State was materially changed. It should, however, be mentioned that, by the Act of 1818, the State Society was authorized to elect not more than twelve and not less than six censors; that the county Societies were authorized, under certain circumstances, to change the time of holding the annual meeting, and that each of the Medical Colleges were authorized to send delegates to the State Society. These sections were not repealed, and are consequently in full force. By the Act of 1819, the Societies were authorized to collect from every practising physician and surgeon in the county, the sum of *one dollar each year;* and in 1823, an Act was passed giving to the Societies general powers to change the time and place of the annual meeting. By the general law passed in 1827, R. S., vol. i., part i., chap. 14, title 7th, it is directed that the President of every county medical Society shall give notice in writing to every physician and surgeon not already admitted a member of the Society of the county in which he resides, that within sixty days after the service of such notice, he apply for and receive a certificate of admission as a member of such Society. If such physician or surgeon shall not, within the time specified in the notice, or within such other time as may be allowed by the president under the regulations of the Society, apply for a certificate of membership in such Society, his license shall be deemed forfeited, and he shall be subject thereafter to all the provisions and penalties of an unlicensed physician, until, on a special application, he shall be admitted a member of the Medical Society of the county in which he shall reside.

It has been supposed by many that this section of the law conflicts with the law authorizing the county Societies to make such rules and regulations for the admission and expulsion of members as they should deem proper; but Justice Bronson, when Attorney-General, directed that the two laws should be taken together; the president was required to give the notice, and the physician receiving the notice was bound to apply for the certificate, under the penalty of forfeiting his license. It was, however, optional with the Society whether they should admit him or not. If they refused, he had done what the law required, his license was not forfeited, he only lost the benefit of membership. The following sections point out the mode by which a member may be expelled, and deprived of his license for gross ignorance, misconduct in his profession, or immoral conduct or habits. This, however, does not prohibit the Society from expelling any member for any cause they may deem proper; but in this case the mere expulsion does not deprive him of his license to practise.

By the Revised Statutes, to practise medicine without a license was made a misdemeanor, punishable by fine and imprisonment.

The revisers very properly believed that the law should in reality accomplish what it professed to do, and that if persons were forbid to practise without a license, the penalty should be such as to effect the object in view; but this provision of the law was not permitted to remain long in force; it was represented as oppressive, &c., and consequently, in 1830, this clause of the law was repealed, and the former absurd law of imposing a nominal penalty of $25, at the same time permitting them to practise with the roots, barks, and herbs, the growth of this country, was re-enacted. No person, unless he was licensed to practise, could by law recover pay for his services. Such were the regulations with regard to a license, until the passage of the Act of last Session.

With regard to the degree of Doctor of Medicine, on the 28th of March, 1834, an Act was passed, recognizing the degrees of Geneva College, and declaring that they shall constitute a license to practise physic and surgery in this State. On the 11th of February, 1837, the University of New York was authorized to establish a Medical Faculty, and its degrees to have the same validity as those of Geneva College; and in 1839, the Albany Medical College was incorporated with similar power. Such was the state of the law until the passage of the Act of last May. For a number of years in succession, our legislation halls were besieged with numerous petitions for a repeal or modification of the medical law, as unjust and oppressive; and we have witnessed the mortifying spectacle of men of education and talents in our legislature, gravely advocating their repeal, on the ground that the clause preventing the unlicensed practitioner from sueing and collecting pay, was oppressive. In other words, that it was unjust and oppressive, that he could not enter our courts of justice and there recover pay for acts which were in themselves a violation of the very laws of the country. On the 6th of May, 1844, the following Act was passed:

"The people of the State of New York, represented in Senate and Assembly, do enact as follows:

"§ 1. The twenty-second section of chapter fourteen, title seven, part first, of the Revised Statutes, and all laws of this State which prohibit any person from recovering, by suit or action, any debt or demand arising from the practice of physic or surgery, or a compensation for services rendered in attending the sick or in prescribing for the sick, are hereby repealed.

"§ 2. The Act entitled 'An Act concerning the Practice of Physic and Surgery in this State,' passed April 7, 1830, is hereby repealed.

"§ 3. No person shall be liable to any criminal prosecution or to indictment, for practising physic and surgery without license, excepting in cases of mal-practice, or gross ignorance, or immoral conduct in such practice.

"§ 4. All and every person, not being a licensed physician, who shall practise or attempt to practise physic or surgery, or who shall prescribe for or administer medicines or specifics to or for the sick, shall be liable for damages, in cases of mal-practice, as if such person were duly licensed to practise physic or surgery.

"§ 5. Any person, not being a licensed physician, who shall practise or profess to practise physic or surgery, or shall prescribe medicines or specifics for the sick, and shall, in any court having cognizance thereof, be convicted of gross ignorance, mal-practice, or immoral conduct, shall be deemed guilty of a misdemeanor, and liable to a fine not less than fifty dollars, and not exceeding one thousand dollars, or imprisonment in the county jail, not less than one month nor exceeding twelve months, or both, in the discretion of the court."

Although this Act was introduced upon the petition of the empirics, it was supported by many of the friends of the profession, and, if I am not mistaken, the medical men in both houses voted for the bill. I believe myself that it is far better both for the profession and the public than the former law, which professed to protect the community, and at the same time failed to accomplish its object. A very mistaken notion pervades the community, that all laws prohibiting any and every person from practising are shaped for the benefit of the medical profession. Nothing could be more erroneous. The object is to protect the community from the imposition of ignorant and unprincipled practitioners. That the effect would be, were the laws efficient, to elevate the profession, and thus unintentionally to benefit it, I will not deny. In this country, public opinion is the law of the land, and the legislator or law-maker is only the exponent of that sentiment. The very first principle of our government is, that man is capable of governing himself, and requires no protection from his own acts; if he chooses to employ a Thompsonian or botanic or Indian doctor (as they term themselves), he has a perfect right to do so, and to prevent him is to interfere with the *inalienable rights* of man, and is not to be tolerated. Experience teaches, that in the present state of public sentiment an efficient law of the kind cannot be retained in the Statute-book. Whether such a law would be useful, is not the question. The question is between the law as it was professing protection without affording it, or the repeal of all prohibitory laws. For myself, I am decidedly in favor of the latter. It is a great mistake to suppose, as many have, that the recent law makes no distinction between the licensed and unlicensed practitioner. The law virtually says, we cannot properly forbid your practising; if you understand the business which you profess, and conduct yourself with propriety, all is well; but if you should prove to be grossly ignorant of what you profess, it is an imposition upon the community, and you are punished as a swindler. If a man understands his profession, it is of little consequence whether he has a license or not; but in that case it would be easy to obtain one. When a man has complied with the prescribed regulations and obtained a license, the law supposes he necessarily understands his profession, and to practise it cannot be considered a misdemeanor. Let us, then, briefly recapitulate what the law now is, regulating the practice of physic and surgery in this State.

1. Any person (man, woman, or child) may practise and collect pay for their services.

2. Any person not being a licensed physician, who shall practise or profess to practise physic or surgery, or shall prescribe medicines or specifics for the sick, and shall, in any court having cognizance thereof, be convicted of gross ignorance, mal-practice, or immoral conduct, shall be deemed guilty of a misdemeanor, and liable to a fine not less than fifty and not exceeding one thousand dollars, or imprisonment in the county jail not less than one month nor exceeding twelve months, or both, at the discretion of the court.

3. In order to obtain a license, the student is required to be twenty-one years of age and of good moral character, and to have studied his profession four years with some regularly licensed practitioner, and have been examined and licensed by the censors of the county medical Society of the county where he pursues his medical studies, or by the censors of the State medical Society or shall have received the degree of Doctor of Medicine from one of the regularly incorporated medical colleges of this State. One year may, however, be deducted, in case the student has attended a full course of lectures in one incorporated medical college, or shall, after the age of sixteen years, have devoted one or more years to classical studies. In order to obtain the degree of M. D., the student must, in addition to the above requirements, have attended two full courses of medical lectures, and be examined by the professor instead of censors.

Persons coming from another State or country, must give satisfactory evidence that they have complied with the requirements in this State. The practitioner must file a copy of his license or diploma in the office of the Clerk of the county in which he proposes to practise, and if he receives notice from the president of the medical Society, must, within sixty days, apply for a certificate of admission as a member of the Society. If, however, he receives no notice, he is not bound to make the application; or if, on application, he is refused admittance, it does not affect his license.

Many persons have supposed that the law of last winter altered or modified the power of the county and State Societies, and that some new Act would be necessary to enable them to manage their affairs; but this is entirely unnecessary. They already possess all the power necessary for the management of their concerns, and to make such *by-laws respecting the admission and expulsion* of members as they shall see fit, only provided they are not contrary to the laws and constitution of this State or the constitution of the United States.

Much discrepancy of opinion exists both within and out of the profession, as to the advantage of restraining laws. It appears from a very able report made to the Monroe County Medical Society, that, in the States of New Hampshire, Rhode Island, Pennsylvania, Virginia, North Carolina, Kentucky, Tennessee, and Missouri, no medical laws have been enacted. In Maine, Vermont, Massachusetts, Connecticut, Maryland, South Carolina, Alabama, Mississippi, Indiana, and Ohio, the restrictive laws have been repealed. In four States, viz., New Jersey, Georgia, Louisiana, and New York, were there any prohibitory laws; and even in those States where the laws have been repealed, there is a discrepancy of opinion as to the effect. Doctor Cartwright, of Natchez, in a very able paper, published in the American Journal for January, 1841, proves that the mortality in Natchez materially increased after the year 1834, when the restraining law was repealed. But Mississippi was one of the first, if not the only State, where the restraining law effected what it professed. In most of them it was a dead letter, as in this State, except as used by the empirics themselves to get up the cry of persecution. In Georgia the law surpassed in absurdity, if possible, that of our own State; thus, at reorganizing a board of physicians with power to grant licenses, &c., it adds, "provided nothing in the said revised Act be so construed as to operate against the Thompsonian or *botanic* practice, or any other *practitioner of medicine* in this State." The conclusion which may be drawn is, that when restrictive laws are really efficient and enforced, they protect the community against inexperience and its consequences, but that popular sentiment is opposed to them; consequently the law is either so drawn as to be inefficient, or is, in nine out of ten cases, openly violated with impunity, whilst its existence is such as to get up a feeling of hostility to the regular profession; consequently, when the law is not efficient or not enforced, it is much worse than no law. Senator Scott, who introduced the bill of last May, in a long and elaborate report richly larded with abuse of the regular profession, has the following as the sole argument in favor of the repeal. "A people accustomed to govern themselves, and boasting of their intelligence, are impatient of restraint. They want no protection but freedom of inquiry and freedom of action;" he would therefore let loose upon the community every unprincipled vagabond, who was so far destitute of conscience as, without any preparation, without any evidence of a knowledge of his profession, or even any evidence of moral character, to prey upon the miseries of the community. From the honorable gentleman's report and subsequent speech, one would naturally infer that he was sent to the Legislature, not to protect the interests of his constituents and the community, but to abuse an honorable and useful profession, and to advance and sustain quackery, which is one of the greatest nuisances of the present age. The reasons given by the Committee of the Monroe County Society are much more valid; they say, "Law is the expression of the public will, without which it can neither be enacted, sustained, nor executed. The written statute is therefore a dead letter whenever the public mind is arrayed against it. And this is pre-eminently the case with regard to the medical law of this State at the present time. Empiricism is everywhere rife, and was never more arrogant, and the people love to have it so. That restless agrarian spirit that would always be levelling down, has so long kept up a hue-and-cry against calomel and the lancet, that the prejudices of the community are excited against, and their confidence in the medical profession greatly impaired, and no law could be enforced against the empiric and nostrum-vender. Every attempt of the kind would only create a deeper sympathy in their favor, and raise a storm of higher indignation against the profession. This spirit cannot be controlled by arbitrary legislation." These surely are sufficient reasons, if there were no others, for a repeal of the late law; and I should regret to see the profession applying to the Legislature for any restrictions on the practice of medicine.

Much has been said of late on the subject of Medical Reform. Its necessity is urged in the able report from which I have quoted, but in what it is to consist or how to be accomplished, does not appear. The very able committee, I find, have run into the same error as many others, in supposing that the medical Societies did not possess the power of regulating the admission or expulsion of members. Justice Bronson says, "It has never been doubted that the Act of 1813 gave the several Societies ample directions as well in relation to the admission as the expulsion of members. They were not compelled without their consent to associate either with licensed quacks or men of bad moral character." Among the modes of reform, a national convention of the schools and State societies has been suggested. This has been tried, and proved a failure.

A favorite project with the reformers is, to abolish the power of licensing by the colleges and county societies, and have one grand central board, or several district boards, to be appointed by the State society; or, in other words, substantially giving all power of licensing to the State society. Very few students are now licensed by the county societies; the principal object, therefore, would be to take the power from the medical colleges. We will not here stop to question the power of the Legislature to do this; but, I would ask, what would be gained? Would a board, entirely unacquainted with the pupil, be more competent to judge of his qualifications from a single examination, than those who had examined him daily for four or eight months? Or could they judge better of their moral character than persons who for months had had them under daily observation? Or is it to be expected that censors taken, as they must necessarily be, from persons engaged in practice, would be more competent to examine than persons engaged in teaching? But it may be said, the colleges are influenced by unworthy motives, and permit students to pass who are not qualified! I confess I am not of the number of those who are always disposed to suspect unworthy motives, when such motives are barely probable. Again, it is not the interest of the medical colleges to pass unworthy students; but even admitting the objection, I would ask, what greater protection would such a board furnish than the present mode of conducting the examination in the medical institution of Geneva College? The student is examined in the presence of a board of curators, who are entirely unconnected with teaching; six of these, equal to the whole number of professors, are appointed by the State Medical Society; the remainder are men of standing and reputation in their profession, appointed by the counties, and these vote with the professors in recommending students for degrees. At least three curators must be present and sign the recommendation.

ART. II.—*On the Action and Uses of Aloes.* By JOHN C. PETERS, M. D., of New York.

1. IT is a specific purgative, for when applied externally to a blister, it operates in the same manner as when administered internally (GERHARD); tincture of aloes applied to a carious bone, has excited purging (MONRO); an aloetic pill applied to an issue has had the same effect (PEREIRA); also, an aloetic salve, when rubbed upon the abdomen (DIERBACH).

2. The part operated, however, is in dispute. Wood and Bache think it has a peculiar affinity for the large intestine; and rather to its muscular coat, than the exhalent vessels, as the evacuations produced are seldom very thin, or watery. Cullen agrees with this, and asserts that it rarely, or ever, produces more than one stool, which seems to be merely

an evacuation of what may be supposed to have been present in the great intestine, while hardly any dose under 20 grs. will produce a liquid stool, which effect is always attended with pain and griping. On the other hand, the ordinary bulky and rather hard evacuation may in innumerable instances be constantly obtained from 1 or 2 grs. The slowness of its operation has also been advanced by Lewis, as proof that it acts on the large, rather than on the small bowels, for it hardly ever operates under 10 or 12 hours, often not till 16 or 18, while even 24 hours may elapse; but this may be attributed to its insolubility in the stomach. Finally, to be still more minute, Newmann conjectures that it acts especially on the circular muscular fibres of the colon. Whether given in large or small doses, it hardly ever causes a copious evacuation.

3. On the other hand, aloes has been supposed to act upon the liver from times immemorial: *Aloe bilem rubeam expellit* (Rhazes); *Aloe ad inferius intestinum bilem ducit* (Aretaeus). According to Sigmond, its influence upon the liver is marked by the peculiar condition of the evacuations, the color and odor of which, and their peculiar pungent effect on the rectum, prove that an increased quantity of bile has been poured forth. Wedekind assumes that the operation of aloes depends on an increased secretion of bile, excited by its specific action on the liver, and asserts that, as long as the stools are white or grey, in jaundice, aloes will not purge even in large doses, while the purgative effect supervenes as soon as the fæcal matter contains bile;—he even carries this opinion so far as to declare that if given when the quantity of bile is normal, or increased, aloes may induce bilious dysentery and hepatitis. Vogt, too, says it is not to be doubted that it has a special action on the liver, and tends more to the restoration of a checked secretion of bile than any other drastic purgative. It never causes watery stools; but the dejections are always yellowish, greenish, or blackish, and slimy, and often have a peculiarly putrid smell (Dierbach). Antyllus counts it among the remedies which evacuate yellow bile. According to Noack and Trinks, it causes aching and tension in the right hypochondrium, bilious papescent stools, with heat of the whole body, and uneasiness in the region of the liver, while the evacuations produced are fæcal, bilious, not watery or copious, and emit a peculiar putrid smell. Its effects are so distinct and characteristic, that, when added to other purgatives, they do not take place until some hours after the evacuations caused by the other purgatives, and its stools differ both in color and smell.

4. A third set of physicians believe that it acts primarily and specifically upon the vena porta system, and assume that its influence upon the liver and bowels is secondary to this. Thus, Braithwaite says: "That it acts upon the vena portarum, is fairly to be deduced from the very peculiar state into which the hæmorrhoidal vessels are thrown by the congestions which so rapidly occur after a dose of this drug has been taken, and also by the condition of the uterine vessels, which has led to its employment as an emmenagogue." When frequently repeated, it is apt to irritate the rectum, giving rise in some instances to hæmorrhoids, and aggravating them when already existing; it also has a decided tendency to the uterus, for its influence in promoting menstruation is by no means confined to cases in which its action on the neighboring rectum is most conspicuous (Wood and Bache). Cullen has seen hæmorrhoids produced from large and frequent doses; it acts specifically upon the rectum, and, in a full dose, is in some persons apt to excite heat and irri-

tation about the rectum and tenesmus, while, in those troubled with piles, it is said not unfrequently to increase, but even to bring on the sanguineous discharge (Pereira). Fallopius says, that of 100 persons who had used aloes freely as a purgative, 90 became affected with a hæmorrhoidal flux, which ceased when its use was omitted; it causes a determination of blood to the uterus, and fulness of the bloodvessels, especially its veins, and thus uterine irritation and menorrhagia are apt to be induced or increased by it (Pereira). Wedekind says it exerts a specific stimulant action on the venous system of the abdomen and pelvis, and hence causes increased secretion of bile, irritation about the rectum, and vascular excitement of the sexual organs; piles, strangury, immoderate flow of menses, and racking pains in the loins, like labor pains, are frequently induced by it (Fothergill). The congestive power of aloes may go so far as to cause a flow of blood from the kidneys, uterus and rectum (Soternheim). It readily causes stagnation and accumulation of blood in the abdominal vessels, and various affections and consequences of Plethora Abdominalis; sometimes, even when given in small doses, it may cause congestions, anxiety, burning when urinating, urging to stool, increased pain in the loins (Vogt). It is a heating remedy, and in young persons readily excites febrile symptoms, quick pulse, troublesome sensation of warmth in the abdomen, &c. (Dierbach). Finally, the excited condition of the Vena Porta system may extend to the whole of the venous side of the circulation, and congestion, to the head and chest, but especially to the abdomen, may arise, attended with an unpleasant heat, anxious feelings and throbbing, with increased sensibility and distension of the abdomen, frequent watery stools, mixed with blood, or bloody stools with violent and cutting abdominal pains, piles, violent pains in the kidneys, scanty hot urine, burning when urinating, discharge of blood from urethra, drawing and burning in the sacral region, &c. (Noack and Trinks). Harnisch says, after the use of aloes in very sensitive or plethoric persons, we notice burning when urinating, tenesmus, aching and heaviness in the pelvis, erections and pollutions, an excitement of the hæmorrhoidal and uterine vessels, and even a similar action of the whole vascular system, so that the pulse becomes fuller and harder, the mouth dry with thirst, scanty discharge of red urine, increased sensation of warmth in the abdomen, throbbing and aching in the right hypochondrium (liver), congestion of blood to the head and chest, with anxiety, bleeding from the lungs, and even apoplexy.

To conclude the enumeration of the peculiarities of the action of aloes, we would state that, an increased quantity does not produce a corresponding cathartic effect; it is alleged by Lewis that its effects are more permanent than those of any other purgative, although Cullen contradicts this, and states that notwithstanding the use of aloes, costiveness will return at its usual period. Small doses often occasion erections, and increase of sexual appetite (Wedekind). Greenhow ascribes a diuretic effect to aloes, and Moirond injected 4 drachms into a vein of a horse, with no other effect than producing the evacuation of a large quantity of urine. It may cause emaciation, stricture of rectum and enteritis; and if given during pregnancy, in large doses, it may produce abortion (Vogt). If its use be long continued, it causes dryness of the intestines, paralytic-like rigidity of the muscular coat, especially of the colon and rectum, in consequence of which obstinate constipation may result; in too large doses it causes violent cutting abdominal pains, watery and long-continued diarrhœa, tenesmus and inflammation of the lower portion of alimentary canal (Vogt). In Moirond's experiment of injecting 4 drachms into a vein of a horse, the fæces were passed enveloped in a thin pellicle of altered intestinal mucus. It causes discharges of membranous-like pieces of mucus from the rectum, and very large rolled-up pieces of intestinal mucus (Noack and Trinks). It has caused vomiting of blood. From very large doses, we at times get a watery diarrhœa, with violent cutting pains, or a long-continued sanguineous diarrhœa, with tenesmus and even inflammation of the bowels. Cullen says it was once a common opinion that aloes dissolved the blood, or increased its fluidity, and Lewis alleges that this is the condition of the blood drawn from persons who are in the habit of using aloetics, although, according to Schwenke, it seems rather to coagulate than dissolve the blood when added to some which has been drawn from a vein. It was an old opinion that it proved emmenagogue from its power of dissolving the blood, and hence was hurtful in scurvy, and all hæmorrhages proceeding from a lax state of the blood and system. It acts as readily in substance as in solution (Cullen).

Therapeutical uses and effects.—1. In disturbances of digestion dependent upon weakness of the muscular fibres of the stomach and bowels; in abnormal secretion of mucus, acid, gas, &c.; in anorexia, dyspepsia, flatulent distension, and painful aching in the region of the stomach, with acid, rancid eructations, sluggish digestion, and constipation, especially of hypochondriacal persons—(Sobernheim). It generally sits well upon the stomach, for its bitterness renders it an admirable stomachic, which promotes both appetite and digestion; some think that it regulates the due secretion of the gastric juice, while the ancients termed it the *anima ventriculi.*

2. But its principal use is in habitual costiveness and obstinate constipation from a long dilatation of the muscular fibres of the intestine, with dryness of the mucous membrane, diminished and abnormal secretion of bile; under such circumstances it is often the only remedy which may be used for years without injury. (Doses, 1 or 2 grs.)

3. In diseases of the liver, we have already alluded to Wedekind's experience with it in jaundice; as long as the stools remain light colored, he pushed it in large doses, viz., half a scruple twice a day; as soon as bile began to appear in the fæces, he immediately reduces the quantity to one or two grains, and even omits its use for one or several days.

4. In affections of the menstrual hæmorrhoidal secretions. The experience here is very curious; in former times it was regarded as the *sacra anchora* in the cure of hæmorrhoids of an asthenic character, although aloes produces active congestive piles. It was also used to restore the hæmorrhoidal flux, when troublesome nervous affections, such as hypochondria, melancholy, mania, cramp of the stomach, &c., were induced by their suppression. Five grains, several times a day, was then the usual dose. By restoring the hæmorrhoidal secretion, it has also relieved the sensations of aching and weight in the pelvis, the erections, pollutions, urging to stool, &c., which are often felt as premonitory phenomena of the occurrence of piles. At times these moliminal hæmorrhoidalæ pass over into flowing piles, under the use of aloes, while at others they cease without any discharge having been produced. Under the latter circumstances, Harnisch conjectures that the tonic and stimu-

lating effects of aloes removes the weakness of the vessels upon which the premonition of piles has depended, i. e., the active congestion produced by the aloes overcomes the passive one, which previously existed in his opinion. Locseke also asserts, that if aloes be given before the accustomed flow of piles comes on, the flux will ensue; but, on the other hand, if given while they are flowing, a stoppage will be effected. Irregular hæmorrhoidal congestion to the head, chest, stomach, bowels, liver, spleen, kidneys, uterus, bladder, &c., with their attendant redness and heat of the face, illusions of vision, threatened apoplexy, a constriction and anxiety about the chest, and even hæmoptysis, or throbbing, aching, &c., about the stomach, with hæmatemesis, or aching in the liver or spleen, with threatened dropsy, or hæmorrhage from the stomach or bowels, or aching in the region of the kidneys with scanty discharge of hot urine, or tenesmus of the bladder from venous congestion of it, and hæmaturia, or congestion to the uterus with menorrhagia, &c., have all given way before the use of aloes. (Harnisch.) Eberle corroborates the above in one particular (see Practice, vol. i., p. 572.) He writes: "Would not Dr. Dewey consider aloes a very improper remedy in the menorrhagias of young, sanguineous and robust females? He no doubt would; and why? because experience has shown that this article is among our most efficient means for exciting the uterine vessels and directing the afflux of blood to them. Yet this article, given in small doses but frequent ones, deserves to be accounted the best remedy we possess for those protracted, exhausting, and obstinate hæmorrhages from the uterus which occur in those of relaxed, nervous, and phlegmatic habits, about the critical period of life. When, therefore, we see a particular modification of this discharge arrested by a remedy which we are accustomed to regard as decidedly calculated to stimulate the vessels from whence the bleeding occurs: in other words, when we cure hæmorrhage by stimulating applications, the conclusion is irresistible that it depended upon debility."

The above is a good example of the very numerous instances in which a very close symptomatic similarity masks a very wide pathological difference. According to Andral, it is a law in pathology that very similar symptoms may arise from very different affections. It is notorious that anæmia is often attended by symptoms which render it liable to be mistaken for hyperæmia; thus the pulse may be frequent, vibrate violently, be deceptively hard and tense, while the heart palpitates and beats forcibly as in active congestion or inflammation; anæmia of the brain and spine is often attended with pain and throbbing in the head, delirium, ringing in the ears, sparks before the eyes, and general convulsions; the *apoplexia ex inanitione* may be attended with the vertigo, stupefaction, entire loss of consciousness, stertorous respiration, &c., which attend true apoplexy with effusion; bloodless lungs are dyspnoic; the bloodless heart palpitates violently; the bloodless stomach is dyspeptic, tender to touch, nauseated, &c. Bark and iron cure the above anæmic affections, antipathically, although they produce very similar symptoms, depending, however, upon the very opposite, i. e., a plethoric state of the system.

According to Symonds, the evacuations produced by the purgative which cures a diarrhœa, are very *different* from those that constituted the latter, and argue a dissimilarity in the state of the membranes that furnished them. The inflammation produced in the eye by the nitrate of silver is *different* in character from the inflammation which it is so useful in removing," &c. In Fletcher's "Elements of Pathology," p. 486, we learn that "In the first stage of inflammation, there is constriction of the capillaries; in the second, there are relaxation and enlargement of these, allowing an increased quantity of blood in them, causing redness, swelling, heat and pain in the part. Now, if in the latter state of the vessels, a stimulus be applied, it must produce constriction or contraction of the enlarged vessels, and hence remove one cause of the disease, viz., the enlargement and relaxation of the vessels. Examples of the utility of stimulants in this second stage of inflammation are familiar in the treatment of ophthalmia and gonorrhœa."

Constipation may be cured antipathically by drugs, the marked action of which is to induce constipation. Thus, one of the most common causes of this state of the bowels is a torpid, relaxed, dilated, and enfeebled condition of the colon; now iron, lime, lead, alum, all which cause a constipation depending on a dry and contracted state of the colon, may cure the first-described condition. Nux vomica causes constipation, depending on a spasmodic state of the bowels, and may cure antipathically a constipation arising from a sub-paralytic state. Opium induces constipation by benumbing and stupifying the muscular fibres of the colon, and will cure constipation depending upon spasm, &c.

Again, admitting that Peruvian bark causes chills, fever, and sweat, this by no means proves that this remedy cures fever and ague homœopathically. For, in the first place, we have perused Hahnemann's description of the effects of bark on the healthy, repeatedly and carefully, and never have succeeded in finding any proof that it induces intermittent affections of any kind; much less a fever characterized by regularly periodical exacerbations and intermissions. In the second place, the bark-fever is an arterial congestive fever, while the intermittent is a venous congestive one. Professor Mitscherlich, of Berlin (see Mat. Med., 224), says, "From the long-continued use of bark, we notice an increase in the quantity of the blood, which also becomes more arterial in quality, hence the pulse becomes fuller and stronger, the skin, especially of the face, becomes redder, congestions ensue, and a *continued* fever may arise." Dr. James Johnson (see Med. Chir. Rev., Jan., 1837, p. 193), says: "If we watch the operation of Peruvian bark, we find that it excites the action of the heart and capillaries, increases the strength and invigorates the system. If pushed beyond a certain point, the bad effects that follow are just what might be supposed to result from an excess of the same sort of action; too much blood is made, and it is circulated with too much force. Sanguineous congestions or local inflammations ensue, and the whole system becomes overloaded and oppressed with blood." How different, nay, how exactly opposite, are the ultimate effects of fever and ague, viz., a cachectic, almost chlorotic, or leucophlegmatic state, marked by paleness and sallowness of the surface, a deficiency of fibrine in the blood, which becomes more venous and watery, and hence predisposes to dropsical affections, stagnations, and infarctions of the blood in the liver, spleen, &c.

Mercury produces ulcers and eruptions, but they differ widely from the syphilitic. The true Hunterian chancre, or indurated ulcer, against which mercury is most serviceable, is rather small, nearly circular, deep, and excavated, the base and edges as hard as cartilages, and is attended with little pain or inflammation, &c.; on the other hand, the mercurial ulcer is superficial, has a broad base, bleeds easily, is painful, and most nearly resembles a phagedenic ulcer, while, according to Pereira, it is well known that venereal sores at times assume a sloughing disposition from the improper use of mercury. Hence it is evident that mercury is most homœopathic to the phagedenic variety of venereal ulcer." But in deciding on the use of mercury in syphilis, another point deserving attention is the condition of the primary sore; if it be of the kind called phagedenic, or at all disposed to slough, mercury must be most carefully avoided, as it increases the disposition to sloughing." (Pereira, Mat. Med., vol. i., p. 597.)

Mercurial eruptions are as rare as the syphilitic are frequent; of these, a vesicular eruption, the *eczema mercuriale*, is the most frequent and best known. On the other hand it is well known that "an eruption, having the vesicular form, and developed under the influence of a syphilitic cause, is unquestionably not a common occurrence." (Willis.) Rayer, too, speaks of syphilitic eczema as extremely rare, for in all his vast intercourse with skin-diseases he met with two examples only. An acrous, or indurated tuberculous, is the most common syphilitic eruption. We can readily conceive how a drug which tends to produce broad, superficial, spongy, and relaxed ulcers, may change the action of a narrow, deep, firm and hard ulcer; a drug which tends to cause vesicular, i. e., serous eruptions, may change the action of a tubercular one, which depends upon the pouring out of plastic and firm lymph from the blood-vessels, &c.

It is needless to multiply examples, for it is evident from those already given, that remedies which act very similar to the action of a given disease, in reality exert an *alterative* action upon that disease. In the earlier stages of his discoveries, Hahnemann recognized the truth of this position, for he states in the 45th paragraph of his "Organon," that "two diseases which *differ greatly* in their species, but which bear a strong resemblance in their symptoms, always mutually destroy each other;" and volunteers the admission in his "Spirit of the Homœopathic Doctrine," that "without this *natural difference* between the affection arising from the disease, and that arising from the drug, no cure could possibly take place, but only an exasperation of the evil." At a later period, he became so blinded and infatuated as to overlook the above irresistible conclusion, and in his precepts and practice even virtually to deny it, and set up the law, "*similia similibus curantur*," as the only true law in therapeutics; but, struggle as he would, all his attempts at explanation resolved themselves into old school theories, as is again evident in his assumption, that every remedy has two sets of actions, viz., primary and secondary, the latter of which is exactly opposite to the former; whence he again assumes that, although the primary action of homœopathic remedies is similar to that of the disease, yet their secondary one is exactly opposite, and is willing to admit that this secondary opposite action effects the cure.

"We have names, diseases, remedies, notions, theories, and explanations different from those of olden times; but the art of healing is still the same, nature is the same, and the same capacities are required for becoming an adept in medicine, as at the time of Hippocrates."—(HUFELAND.*)

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* See "Enchiridion Medicum."

ART. III.—*Green on Asphyxia of New-born Infants.* By HORACE GREEN, M.D., of New York.

THE attention of the profession has not been called sufficiently to this subject.* The causes which operate to produce asphyxia, and the pathological condition of those children that are born in an asphyxiated state, are alike but imperfectly understood. Hence the means employed to restore still-born infants to life, although in many instances successful, are consequently empirical.

The doctrine of some of the French pathologists, that asphyxia is dependent upon an engorged condition of the liver, will not explain some of the secondary symptoms which follow in many cases of recovered animation. It is the opinion of Cruveilhier, whose extensive experience at the Maternité entitles his opinions on this subject to much credit, that apoplexy is the cause of death in one-third of those children who die during the progress of labor. The pathological condition of the brain of such as die of fœtal apoplexy, is "an effusion of liquid blood within the cavity of the arachnoid."† But, as these cases of apoplexy from effusion within the brain, are attended almost constantly with "collections of blood under the hair scalp," the disease, in such cases, would seem to depend upon the length and tediousness of the labor; whereas, many cases of asphyxia will be found to have occurred when the brain cannot have suffered from compression during labor, namely, after easy and very rapid deliveries. On the other hand, we frequently have protracted and tedious labors, attended with extensive ecchymoses of the scalp, with displacement of the cranial bones and elongation of the head, without any apparent injury to the child. Hence, although effusion of blood within the brain may be, and undoubtedly is, the cause of death in some cases, it cannot be in all. Nor can we explain why this fœtal apoplexy should occur in some cases and not in others.‡

Although my own attention has been particularly drawn to this subject for the last fifteen years, I am not able to throw any new light upon the causes producing this condition, or the pathology of the complaint.

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* The importance of the subject may be seen from the result of an examination which I have just made of the "Bills of Mortality," as they are kept in the office of the New York City Inspector. From this examination, it appears that the number of still-born children within the limits of this city alone, during the ten years preceding, and ending with 1844, amounts to 5957! averaging nearly six hundred to each year. The number amounted the last year to seven hundred and forty-one.

The ratio of dead-born to the number of births, cannot be accurately ascertained; because a register of births, from some unaccountable neglect on the part of our city authorities, is not kept. But there is one dead-born to fifteen births, a larger proportion, probably, with the exception of Paris, than in any other city or country in Europe.

According to M. Foissac, there is one dead-born to nineteen births in Paris, one to twenty in Berlin, one to twenty-four in Vincennes, one to twenty-seven in London, and one to thirty-six in Stockholm. The mean average for all Europe is one to twenty-two.—*De l'Influence de Climate sur l'Homme, par P. Foissac.*

† Anatomie Patholog. du Corps Humaine.

‡ There is an interesting fact stated by Foissac with respect to the relative numbers of still-born in the two sexes. It is that "the mortality is greater among boys than among girls." Throughout every country in Europe, it has been ascertained that the number of still-born among boys is nearly one-third greater than among girls. The same fact has been observed to occur in this country, but it is confined to the white population. This disproportion, it has been observed, does not occur among the blacks.

During this period I have had many opportunities for resuscitating still-born children; and my purpose, at this time, is, to call the attention of the reader to that condition or sequence, that, in my experience, has followed in those cases where long-continued efforts have been necessary to restore animation.

The method which I have pursued has not differed materially from that which is laid down in many of the modern systems of midwifery; and where I have been successful, as I have been in many apparently hopeless cases, it has been owing more to a long-continued perseverance in the generally approved plan, than to any original method of my own. In several instances I have succeeded in restoring life to still-born children, where more than one hour had elapsed from birth before any or but slight symptoms of returning animation were exhibited. In other cases, where even no symptom of life was evinced at birth, except, perhaps, a slight tremulous motion in the regions of the heart, it had been necessary to make the attempt for a few minutes only, before a slight inspiration would give evidence of returning life, and by continuing the efforts for a short time longer, regular respiration would be completely established. Infants thus readily restored to animal life, are as certain to live, perhaps, as those who cry strongly at birth. But, in those cases where fœtal life was suspended at birth, and where, to effect re-animation, such long-continued exertion has been found necessary, I have been invariably doomed to disappointment, from inability to prolong that life which I had been instrumental in restoring. In all these instances, death from *convulsions* has occurred in less than thirty-six, and generally within twenty-four hours from birth.

The existing cause of these convulsions I have never been able to understand, and, consequently, have failed in obviating.

From a number I have selected the two following difficult cases, which will be sufficient to show the method I have employed for recovering still-born children, the length of time required, the sequence, &c.

Case 1.—March 25th, I was called to attend Mrs. F—, who had previously been delivered of several children. Some necessary delay, on my part, occurring, I found, on arriving, that she had been delivered of a still-born child, half an hour previous to my arrival. From the woman's account who acted as midwife, I learned that the labor was a natural one and the delivery rapid; "but the child was born," she affirmed, "without any sign of life," and she had laid it away, enveloped in a blanket, in one corner of the room. For fifteen minutes after I entered the room, the mother required my attention, and the infant was still left in the blanket. On examining the child, when at liberty, I found it with every appearance of having been alive during labor, or at the time labor commenced. There was no discoloration of the skin, nor any signs of putrefaction. On the other hand, no pulsations of the heart existed, or any other appearance of life. Discovering no good reason for its death, I concluded it was asphyxia, from some cause, and I determined to make a powerful effort to resuscitate the body.

At first, my intentions were opposed by some of the women in attendance, who asserted that, as the parents were poor and had several children already, "it would be no deed of benevolence to bring the infant back to life." But these *unmotherly* sentiments were silenced, and their assistance secured, by my relating to them the anecdote of the birth of Sir Isaac Newton, and assuring them that most still-born children that *lived* were sure to become remarkable personages.

The child was first placed in a vessel of warm water, and kept in for a few minutes until the surface became warm. It was then taken out, wiped dry, and enveloped in a soft warm blanket. After clearing the mouth and fauces of all mucus, I commenced the alternate action of inflating the lungs with air (by applying my mouth to that of the child), and pressing it out with my hand upon its chest, whilst an attendant was constantly renewing the heated cloths. Continuing this process steadily *for thirty minutes*, together with frictions to the extremities, to the soles of the feet and the palms of the hands, at the end of this period I could distinctly perceive a faint, tremulous motion in the region of the heart. On removing the ligature which the midwife had applied to the fœtal part of the umbilical cord, I succeeded in pressing out a few drops of blood, and the heart could then be felt beating distinctly and rapidly. The flow of blood increasing, the ligature was re-applied, after a spoonful or two had escaped, and the artificial breathing continued. In a few minutes longer a single convulsion-like inspiration of the child gave another sign of life, and encouraged us to continue our efforts. The inflations were continued at regular intervals, lengthening those intervals as the infant showed ability to breathe for itself, for one hour and a quarter, from the time we commenced, when the child was sufficiently restored to be put to bed with its mother. This child lived twenty-four hours, breathed freely, and had every appearance of doing well, when the sudden occurrence of convulsions carried it off before any relief could be obtained.

Case 2.—On the 1st of June I attended the wife of the Rev. Mr. C—, at her second lying-in. On her previous and first confinement, she was delivered, as I was informed, of a still-born child. She had completed her full time, when labor commenced. The position was regular; of the first presentation, and the pains efficient: but as the head descended into the pelvis, and particularly at the lower strait, the pains became flagging. At this time I perceived one or two jerks of the head—the same as often occur when the head is detained too long in the breech presentation. Aware of the dangers that this sign indicated, I immediately gave ten grains of the ergot, and in less than twenty-five minutes the child was born. The cord was not around the neck, as I had anticipated, and yet the infant exhibited not the least sign of life. There was no pulsation of the cord, or in the region of the heart; and in dividing the former, a few drops of blood only escaped. I immediately commenced efforts to resuscitate the child.

The usual method was pursued (which was the same as laid down in the former case) and perseveringly pursued, in this instance, for one hour, before the child showed but slight symptoms of life. The first evidence of returning animation was a slight pulsation in the region of the heart, soon followed by a short spasmodic inspiration. The inflations were repeated at intervals, until regular respiration was established.

This child breathed with considerable regularity, and showed a disposition to nurse, when put to the mother's breast. Its respiration, however, was never entirely free; and, in about twelve hours from birth, this difficulty increasing, convulsions occurred and destroyed the child.

I have been thus particular in giving the circumstances connected with these cases of asphyxia, that the reader may be enabled thereby the better to judge of the cause or causes which operated to induce the convulsions.

It is the opinion of Girardin, Burns, Moreau, and some other obstetrical writers, that the child is more frequently still-born after the use of the ergot of rye; and it may be supposed that, in many of the cases to which I have alluded, the employment of this article may have been the cause of asphyxia. There is no doubt that, when improperly administered, the ergot may have a tendency to produce this fatal effect upon the infant; either by exciting a poisonous influence upon it, through the system of the mother, or by inducing that state of permanent contraction of the uterus, by which the placenta is detached, or, so compressed as to arrest the fœtal circulation before respiration is established; but in the severe cases of asphyxia which have fallen under my observation, the ergot has been employed in the single case only which I have reported.

It may be well here to remark, that, in recovering still-born children, I have depended more upon inflation of the lungs, regularly and perseveringly continued, than upon all other means. Dr. Scott, of London, in his work on "The Use of Lavements," says that "many still-born children have been resuscitated by the administration of stimulating injections."* But lavements were Dr. Scott's hobby; he would have prescribed them for a whitlow!

Various methods for doing this have been recommended by different obstetricians; but, in my opinion, it should only be done by applying the mouth of the operator to that of the child; the latter being wiped dry, and covered with a piece of clean thin muslin. In this way the lungs can be more perfectly inflated than by any other method. Besides, the warmth thus imparted to the chest is of undoubted service in exciting the cardiac action.

I am convinced, from my own experience, that most still-born children who are alive during parturition, can be resuscitated by the above method, provided the inflations and other means be continued for a sufficient length of time; and if any plan could be devised to prevent the occurrence of convulsions, where asphyxia has been long continued, the lives of many still-born children, that are now lost, might be saved.

ART. IV.—*Wound of the Axillary Artery and Plexus of Nerves.—Amputation below the Shoulder-joint.—Secondary Hæmorrhage.—Ligature of Subclavian Artery.* By ALFRED C. POST, M.D., Surgeon to New York Hospital.

GOTTFRIED SPERLIN, a ropemaker, of good constitution, 37 years of age, a native of Alsatia, was admitted into the New York Hospital on the morning of the 16th November, 1843. During the previous afternoon, while he was engaged in cutting hemp with a large and sharp instrument resembling a scythe, the edge of the instrument came into contact with his right arm in the axilla, and divided all the soft parts down to the bone by a transverse wound including half the thickness of the limb. The axillary artery and vein, and the brachial plexus of nerves, were of course divided. The accident happened at Williamsburgh, on Long Island; and Dr. Cox, of that village, was fortunately in the vicinity, and secured the axillary artery with a ligature within a few minutes after the wound had been inflicted, but not until the patient had lost a very large quantity of blood. On the following morning, when the patient was brought into the hospital, the limb was exceedingly swollen and cold, and the symptoms of incipient gangrene were so manifest, that at a consultation of the surgeons in the hospital, it was unanimously agreed that immediate amputation should be resorted to. I accordingly removed the arm, by a double flap operation, about two inches below the head of the bone. The axillary artery being denuded for some distance above the ligature which had been previously applied, I placed a second ligature around it three quarters of an inch higher up. The parts incised were found to be somewhat infiltrated with blood. The edges of the wound were brought together, and secured in the usual manner by sutures and strips of adhesive plaster. Union did not occur by the first intention, but free suppuration was established within 48 hours after the operation. Tonics and generous diet were administered, and everything went on favorably until the 30th November, about half an hour after midnight, when he was awakened from his sleep by a feeling of pain in the stump, and the trickling of a warm fluid. The ligature had come away a day or two before. The house-surgeon, Dr. Conger, was immediately sent for, and on his arrival he found that there had been an arterial hæmorrhage, supposed to amount to about twelve ounces, and that it had ceased spontaneously. I saw the patient soon after and summoned a consultation of the surgeons, at which my colleagues, Drs. Cheesman, Hoffman, Buck, and Watson, were present. The dressings were removed and the stump examined: there was no return of the hæmorrhage, and the vessel from which it had proceeded was not to be seen. It was agreed that the wound should be left open, being nearly covered with lint, which was directed to be kept constantly wet with cold water. The patient was watched for several days by a succession of medical students, who were directed to compress the subclavian artery against the first rib, if the hæmorrhage should return. There was no further bleeding until the 6th December, between 12 and 1 o'clock in the middle of the day, when a profuse arterial hæmorrhage occurred suddenly and without warning. The quantity of blood which was lost amounted to at least a pint: it had soaked through the mattress upon which he was lying, and formed a puddle upon the floor. I was in an adjoining room, and was immediately sent for; on my arrival, I compressed the subclavian artery against the first rib, and in this manner restrained the hæmorrhage, but not without considerable force. Doctor Watson, who was at the time in the hospital, was sent for, and compressed the artery below the clavicle, while I proceeded to perform the operation of securing the vessel, where it emerges from between the scaleni muscles. During the operation, a slight wound was inflicted upon the external jugular vein, and a bubble or two of air entered with an audible gurgling sound: the further entrance of air was promptly arrested by the application of Dr. Watson's finger upon the wounded vein. A ligature was applied to the suprascapular artery, which presented itself in the wound: this vessel being drawn aside, I could feel the pulsation of the subclavian artery where it crosses the first rib. I then denuded the artery of the fascia and cellular tissue covering it, and without any difficulty passed a ligature under it by means of Sir Philip Crampton's admirable needle. Before tightening the ligature, the artery was distinctly seen pulsating over it, by Dr. Watson and the students who were present. After securing the artery, a firm compress of lint was applied over the wound of the jugular vein, and the edges of the cutaneous incision were brought together by means of sutures and adhesive plaster. After the operation, the patient appeared very much exhausted: but he gradually rallied under the influence of stimulants and tonics. Suppuration was freely established within a few days, and the compress of lint, which had been left within the wound, was discharged with the matter. The ligature, which had been applied to the subclavian artery, came away on the 2d January, 1844, 27 days after it had been applied. The following report was made on the 19th January. The wound on the clavicle is slowly contracting and healing at the edges. The stump is nearly healed; but a portion of the extremity of the bone is denuded, being overlapped by fungous granulations, and it will, no doubt, exfoliate. The patient is still taking tonics: his appetite is good, and his general condition much improved.

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* Scott on Lavements, p. 127.

On the 9th April, he left the hospital in good health, the wound over the clavicle being healed with the exception of a point not much larger than a pin's head. The stump was very nearly healed, there being no longer any exposed bone.

On the 1st January, 1845, he called at my house to thank me for the services which I had rendered him, and left a very beautiful coil of rope as a testimony of his gratitude.

ART. V.—*Case of Internal Uterine Hæmorrhage.* By Prof. C. B. COVENTRY, M.D., of Utica, N. Y.

THE following case being one of unusual occurrence and of some interest, I have taken the liberty of sending a brief notice of it for insertion, should you deem proper, in your journal.

I was called, on the afternoon of the 9th of September, 1842, to Mrs. M., pregnant with her fourth child, supposed to be about eight months advanced in pregnancy. Mrs. M. has a feeble constitution, and has suffered severely from derangement of stomach during the whole of her pregnancy. On the 8th, she received a shock, in an effort to prevent a child falling from a high stoop; from which time, she had more or less pain in the back. On the morning of the 9th, she walked about a quarter of a mile. I first saw her about 4, P. M.; found her with pain in the back, of an intermitting character; great pallor of countenance, os uteri very little open, and the neck of the uterus not fully developed. Mrs. M. had been vomiting and purging before my arrival, and still complained of sickness at the stomach. Anodynes were directed, with perfect rest, and a sinapism over the region of the stomach. 9, P. M., the pain in the back has subsided; sickness at the stomach continues; has fainted twice on attempting to get up to void urine; pulse very feeble. This state continued through the night; towards morning, a small quantity of stimulants were given, and the prostration was rather less, though she cannot be placed in an erect position without fainting. Saturday, 10th, 12 o'clock, continues much the same; mouth of the uterus open to the size of a half dollar, and relaxed; yields readily to pressure; abdomen very much distended and irregular; apparently projecting more at one point than at any other; membranes quite tense, but no labor pains. As no urine had been voided, with the knowledge of the patient, since yesterday morning, I introduced the catheter; but very little urine was discharged. No motion had been felt since the morning of the 9th. Apprehensive, from the first, that the prostration might arise from internal hæmorrhage, I had determined, if I found my patient sinking, to rupture the membranes and deliver. I had left my patient, for a few minutes, when, contrary to my express injunction, she had insisted upon getting up to use the night-stool. When up, she was seized with hæmorrhage, and lost half a pint of blood when on the stool. A messenger was despatched for me; I found her still flowing, pulseless, and faint. I immediately ruptured the membranes, instituted friction over the uterus, and in half an hour she was delivered of a dead child. The flowing had ceased immediately on rupturing the membranes; no blood followed the expulsion of the child; but when the placenta was delivered, it was followed by a large mass of coagulated blood, revealing the source of the difficulty. The uterine surface of the placenta was covered with blood of the same description. In this case, the blood had undoubtedly been effused between the placenta and uterus. From this period, Mrs. M. continued gradually to recover, though it was some days before she could keep the erect position, without becoming faint.

Art. VI.—*Remarkable case of Compression of the Spinal Cord, in which the compressing vertebræ were removed.* By H. A. Potter, M.D.

(Reported by T. C. and W. P. Hurd, M. D.)

On the 23d of February, 1844, Oliver Eddy, of Union, Branch county, Michigan, an athletic, healthy young man, aged about 21 years, while engaged in felling a large basswood tree, was struck down by the falling of a limb. The limb, which was five inches in diameter, and seven feet in length, fell, without obstruction, from the height of about sixty feet, and was seen, by the man at work with him, to hit him upon the back of the neck, as he stood leaning slightly forward. The blow produced no bruise or discoloration, although it left him senseless, in which state he was carried to the house, a distance of nearly one third of a mile. By this time, the breathing had become stertorous, the whole surface was cold, the pulse slow and almost imperceptible, continuing thus through the night, notwithstanding warmth, friction, and stimulants were perseveringly used.

On the morning of the 24th, he was bled freely, but without any perceptible improvement The stertorous breathing continued, and the pulse remained small.. He vomited often during the day, and hiccoughed occasionally. The expression of his countenance was bad. A cathartic of sal epsom and senna was administered, and by the aid of an enema, an operation was secured in the course of the day, still without improvement.

On the morning of the 25th, the catheter was introduced. During the day, and for the first time, he was aroused from his insensibility, though immediately after he relapsed again into a state of lethargy. During the night his pulse sank vomiting followed at short intervals, a general coldness pervaded the body, and death seemed about to close the scene.

On the 26th the vomiting subsided, warmth was restored, the patient was easily aroused, his pulse was at about seventy, and he received some nourishment. On this and the following day, large quantities of pus passed from the bladder after the catheter was withdrawn; and from this time the discharge of pus was enormous, amounting to from a pint to a quart daily, for two weeks or more. These discharges were exceedingly offensive; nor did they abate till some time in the third week, when abscesses formed on the back, covering for a while almost the whole dorsum. The muscles over the sacrum sloughed off, leaving the sacrum bare. One abscess formed in the glutei muscles, and extended down to the knee. Upon opening this, it discharged nearly a quart of healthy pus, and continued afterwards to discharge daily from half a pint to a pint for several weeks.

There was no motion nor sensation below the upper part of the thorax. The patient could not tell when he was pricked, nor handled, unless moved so much as to stir his neck; in that case the sensation was very great. Walking across the floor so as to jar his bed, caused great pain.

At the expiration of about three weeks from the occurrence of the injury, his general health had considerably improved; his appetite was good, his skin became soft and natural, he rested well nights, and nature seemed to be accommodating herself to his condition. This favorable state continued some eight or ten days, when the symptoms became again unfavorable;—such as restlessness, much of the time contracted and shrivelled skin, resembling, more than anything else, that upon the leg of a turkey; pulse small and quick. In this condition he remained for a week, affording but little hope that he could survive; when, unexpectedly, he began to improve again, which he continued to do for another week. Then followed a like period of unfavorable symptoms, attended with hectic fever. Thus nature seemed to strive with the injury, alternately gaining and losing, until about the first of May, when the improvement became more permanent. He gained some flesh, healthy granulations formed around the abscesses, the upper part of the back cicatrized over, the discharge from the abscesses diminished, and it seemed somewhat probable that, if he did not entirely recover, he might still live for a considerable time. However, near the last of May, after the discharge from the abscesses had materially lessened, he began to expectorate pus, and his general health appeared to decline.

It will be proper at this point to give some account of the treatment which we pursued during this period. After making use of stimulants, cathartics, venesection, &c., we had recourse to cupping and blistering, although without obtaining the desired results. Having seen ergot recommended by M. Payan, in Braithwaite's Retrospect, as operating primarily on the spinal cord, and successfully used in Paraplegia, and likewise in cases of injury of the spine, we concluded to try that, which we did, administering it in drachm doses for about ten days. No effect, however, was susceptible, except that it appeared to operate as a diuretic,—from three to four quarts of urine being discharged in twenty-four hours, which (as well as the pus before mentioned) was exceedingly offensive. We next employed nux vomica (not having strychnine), in substance and tincture, but with no better effect. After the hectic symptoms appeared, we made free use of tonics, and allowed the patient a generous diet. Thus he continued for more than three months unable to move a finger, or a toe, or to tell by feeling when he was handled.

On the 3d of June, Dr. H. A. Potter, then of Bethel, Ontario Co., N. Y., but now a resident in the neighboring village of Battle Creek, Calhoun Co., this state, while passing through our place, called on us, and we invited him to visit our patient, which he did. After careful examination of the case, he pronounced it compression of the spinal cord; and suggested that it might be removed by an operation. But as he had never heard of an operation being performed in the like instance, it was with some delicacy that he recommended this course. It was, however, deemed best, and was readily assented to by the patient. Accordingly, on the following day, in the presence of Dr. Hanchett, of Coldwater, and his two students, ourselves, and some of the friends of the patient, Dr. Potter performed the operation. He commenced by making a bold incision from the second cervical to the third dorsal vertebra, directly over the spinous processes. He next, with much difficulty arising from the collection of ossific matter, separated the integuments from the spinous processes down to the body of each vertebræ, removed the processes, and made an incision into the intervertebral substance, between the third and fourth cervical vertebræ, so that he could introduce the end of his forceps. It should be remarked here, that, after trying many different instruments without effect, he at length resorted to the bone forceps, commonly found in amputating cases, with which the bone was readily sheared; and, it is thought, that this or a similar instrument will be found to answer the best service in like cases. He then proceeded to remove the spinous processes and portions of the vertebræ, piece by piece, till he came to the spinal cord, when, as soon as there was room, he introduced the handle of a small scalpel under the compressing vertebræ, so as not to injure the cord, while he continued to use the forceps. Proceeding in this manner, he removed parts of the four inferior cervical and the two superior dorsal vertebræ. The vertebræ were so much ossified, as to render it extremely difficult to ascertain the precise point of compression. There appeared, however, to be but four that were fractured so as to produce compression, although the spinous process of the two inferior ones removed, were more or less fractured. In the whole, ossification had taken.

All the physicians present had an opportunity of observing the spinal cord, and of seeing and feeling its pulsations. Before the operation ended, the patient said he felt as though we were pricking him all over. Sensation appeared to return almost instantaneously, and for the first time that he was conscious of it, below the compression, after the receipt of the injury. There was very little hæmorrhage, not enough to make it necessary to tie an artery. The patient bore the operation remarkably well. Four or five hours afterwards, we saw him, and he could readily tell which foot or toe we touched. Sensation was nearly perfect, except in the limb in which was the abscess:—in that it was less natural. He had some difficulty in expectorating, which had existed for several days previous; otherwise he rested well. The discharge from the abscesses, which, for four or five days, had been somewhat diminishing, now entirely ceased. From this time, pus was expectorated in large quantities. The wound made by the operation, gave but little trouble. Healthy granulations formed and filled up the cavity, and cicatrization commenced around the margin. But the expectoration and difficulty of breathing increased; and the patient died on the 22d of June, eighteen days after the operation, and four months from the time of receiving the injury, apparently from suppuration of the lungs, but little inflammation having ensued from the operation.

We think that the operation, if it had any effect upon his life, tended to lengthen it; and had it been performed at an early period after the injury occurred, we are of opinion that his life might have been saved. The operation, which occupied about forty-five minutes, was well and skilfully performed. From our particular acquaintance with this case, we are clearly of opinion that, in all similar cases, a similar operation should be performed.

Union, *Branch County*, *Michigan*, 16*th Dec.*, 1844.

ART. VII.—*Notes on the Legal Relations of Insanity.* By CHARLES A. LEE, M.D. From the American edition of Guy's Principles of Forensic Medicine.

THERE is no subject connected with legal medicine, so important, and yet so difficult, as that of the legal relations of insanity. It has, for the last half century, called forth the efforts of the ablest men, both in law and medicine, and yet, judging from late judicial opinions and decisions, the principles, on which civil and criminal responsibility rest, are as far from being settled, as ever. We have seen that the English judges, in the case of McNaughton, have laid it down, as a rule to regulate all future cases, that, in order for the allowance of the plea of insanity, undoubted evidence must be adduced, that the accused was of a diseased mind, and that, at the time he committed the act, "*he was not conscious of right or wrong*," and also, "that if the *delusion* under which a person labored were only *partial*, the party accused was equally liable with a person of sane mind."

In the case also of Greensmith, who, in a fit of homicidal insanity, murdered four of his children, it was laid down by the judge, that "the complete possession of reason is not essential to constitute the legal responsibility of an offender;" the prisoner was consequently found guilty and sentenced to death. But who does not see that such a test cannot enable us to distinguish the insane homicide from the sane criminal?*

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* It would not be difficult to quote many cases which have occurred in this country, where insane persons, it is believed, suffered death for acts of homicide.

In the year 1785, a man by the name of Goss was executed at Litchfield, Conn., for

We have already related cases, where insane persons have committed acts which they knew to be wrong, and of the criminality of which they were perfectly conscious. They have, in repeated instances, committed murder, in order to receive the punishment of death at the hands of the law; and, therefore, were aware of the consequences of the act, and that it was in violation of the law. In the case of Hadfield, it was clearly proved that, in shooting at George III., he knew that he was doing what was contrary to law, and that the punishment of death was attached to the crime of assassination; "but the motive for the crime," says Taylor, "was that he might be put to death by others—he would not take his own life." So in the case of Martin, who set fire to York Cathedral, he admitted that he knew he was doing wrong, and that the act was illegal, but he said, he had the command of God to do it. This test, then—"a consciousness of right and wrong," is utterly impracticable and insufficient, and were it to be applied in criminal cases, would, in numerous instances, lead to judicial murder, or, in other words, to taking the life of the really insane. The American Law Magazine, for January, 1844, in a very able article, lays down the following test:—"If there be *a total permanent want of reason*, as exhibited in mania or idiocy, or if there be *a total temporary want of it*, as shown in morbid delusion, the judgment of the law cannot take place." "Such," it adds, "are the degrees of insanity, the existence of which will excuse the commission of crime. They are the only degrees recognized by the authorities. They constitute the law." And yet this is the very doctrine of Lord Hale exploded by Erskine, in the case of Hadfield. The Attorney General had laid it down as a settled principle, that "to protect a person from criminal responsibility, there must be *a total deprivation* of memory and understand-

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the murder of his wife. It appeared in evidence, that for more than a year previous, he had labored under an idea that witches haunted him; and under the impression that his wife was a witch, he justified his conduct in depriving her of life—under such infatuation, he ordered his attorney, in most peremptory language, not to apply for a reprieve to any human tribunal, alleging that his Heavenly Father had forbidden all such proceedings. He called himself the second Lamb of God; said he was brother of Jesus Christ, and that he was the child born of the woman mentioned in the Revelation of St. John, &c. He persisted to the last, that the sheriff could not hang him; that the Almighty would interpose if the attempt were made, and that 30,000 males, above 15 years of age, would be killed by the shock in North America. In this state of mind he was hung, to the great satisfaction of the people, it is stated, who believed him "hardened in guilt," &c.—*Conn. Hist. Collections.*

Charles Cook, a poor laborer, was executed near Schenectady, N. Y., Dec. 18, 1840, for the murder of Mrs. Murray. It was proved that he had, a few months before the commission of the act, been in a state of the wildest fury—roaming the streets with no other clothes on than his shirt and boots, keeping off the crowd by swinging his pantaloons, and proclaiming himself "their bleeding Saviour." He was with difficulty secured, by being entangled in a rope and committed to jail as a lunatic. He was at times gloomy and stolid—occasionally highly nervous and agitated—his suspicions and sense of offence quickly aroused—he looked upon mankind in general, as enemies and persecutors, moaning to himself and uttering inarticulate sounds. After reviewing the whole case, Mr. J. L. O'Sullivan remarks, "it would certainly seem that there could be no doubt of the insanity of this poor wretch." There prevailed, however, a strong exasperation against him, and he was hung, persisting that "he thought he had done right, and under the same circumstances, would do so again."

There have been four or five capital punishments inflicted in this State during the last few years, where there is good reason to believe that the persons were laboring under insanity at the time of committing the acts for which they suffered.

ing,"—to this Mr. Erskine truly replied, that "no such madness ever existed in the world." "In all the cases," said he, "that have filled Westminster Hall with the most complicated considerations, the lunatics and other insane persons, who have been the subjects of them, have not only had memory, *in my sense of the expression*,—they have not only had the most perfect knowledge and recollection of all the relations they stood in towards others, and of the acts and circumstances of their lives, but have, in general, been remarkable for subtlety and acuteness. Defects in their reasonings have seldom been traceable—the disease consisting in the delusive sources of thought—all their deductions, within the scope of their malady, being founded on the *immovable* assumptions of matters as *realities*, either without any foundation whatever, or so distorted and disfigured by fancy, as to be nearly the same thing as their creation." *Delusion*, as has already been stated, was the test laid down by Erskine, and admitted by the court; and yet, in the case of Bellingham, for the murder of Mr. Percival, twelve years afterwards, Chief Justice Mansfield declared, that "if a person were capable of distinguishing *right from wrong*, there was no excuse for any act of atrocity which he might commit under this description of derangement."—Russell on "Criminal Law," echoes the same opinion. Lord Lyndhurst, in the case of the King *v.* Oxford, directed the jury to acquit the prisoner, if satisfied, "that he did not know, when he committed the act, what the effect of it, if fatal, would be, with reference to the crime of murder!" These tests, we are now gravely told, must be laid aside, and we must go back to Hale's opinion, that the *total deprivation of reason* alone, can exempt from criminal responsibility.

The practice, however, of American courts, we are happy to know, is guided by more liberal doctrines. In the trial of Lawrence, at Washington, in 1835, for shooting at President Jackson, the court directed the jury to regulate their verdict by the principle laid down in Hadfield's case, namely, that a person is not responsible for whatever criminal act is committed under the influence of *delusion*. In the case of Wilson, tried in York County, Maine, in 1836, for the murder of his wife, in a paroxysm of insanity, the jury were advised by the court to bring in a verdict of acquittal, provided they were satisfied that the prisoner was not of *sound memory and discretion*, at the time of committing the act. In the case of Rogers, however, who was tried in Massachusetts, in 1842, for killing Mr. Lyman, the warden of the state prison, Chief Justice Shaw remarked, that "if the prisoner had the capacity to distinguish between right and wrong, as to the particular criminal act, he was responsible." "Although laboring under partial insanity," he continued, "if the person understands the nature and consequences of his act, then he is responsible for it." (The fallacy of such a test has been already sufficiently exposed.) But we have dwelt long enough, perhaps, upon the vagueness and unsatisfactory character of the tests, which have usually been laid down by our courts, and by which we are to decide in relation to civil and criminal responsibility. While we fully coincide with Dr. Beck in the opinion, "that there must be some rule to guard the sacred interests of society; something to repress and keep in check that tendency to shed the blood of his fellow, which unfortunately is too common:" we must at the same time, express our conviction that, if the test quoted from Lord Lyndhurst, by Judge Dayton, or Chief Justice Shaw, be relied on, the life of the insane will inevitably be taken "by judicial process." The knowledge of laws, whether human or divine, does not imply the control of the *will*. The possession of conscience does not prove that instinctive impulses may not be too powerful to resist. The remarks of Leuret, quoted apparently with approbation, are of momentous import. "The criminal has conscience, liberty, will. The monomaniac has conscience, without liberty. Thus, some will withdraw themselves when they feel the disposition for committing injury. If this reasoning be correct, can such a person be held responsible for his actions, even if he knows what he is doing?" Would not the difficulties which complicate this whole subject be in a great measure removed, if the laws were so amended, as, in cases of *alleged or doubtful insanity*, to substitute imprisonment for life for the punishment of death, where the latter would be inflicted, provided the individual was sane? To such a result, science, philanthropy, and the spirit of the age, unquestionably point.

As the charge of Chief Justice Shaw in the case alluded to, is a very fair exponent of the views now entertained by our courts, in relation to the principles involved in the Medical Jurisprudence of Insanity, we shall present the substance of it in the following extract:

In the case of Rogers, indicted for the murder of Mr. Lincoln, warden of the Mass. state prison, at Charlestown, in 1843, Chief Justice Shaw remarked, "to commit," said he, "the crime of murder, a person must be of competent understanding—a child incapable of distinguishing between right and wrong, a furious madman, or an idiot, could not, of course, be guilty of murder. If there were no will, no power of judging of the nature of actions, no conscience, or if the power of the understanding were obliterated by controlling mental disease, there could not be guilt. These were extreme cases—in all such the general rule of law was so plain and simple that they were never brought to trial. The difficulty was in the vast number and variety of intermediate cases, to which no general rule could be made to apply. Such were cases of partial insanity, where the understanding was perverted by insane delusions, influencing the subject of them to believe in the existence of a false state of facts, where there was some capacity; and the question then was, whether that degree of capacity was sufficient to enable the individual to distinguish between *right and wrong*, or there might be cases of monomania, in which the mind of the patient was sane upon all subjects but one.

In these cases, the afflicted person might be capable of reasoning correctly, of drawing correct inferences, but as this reasoning was built upon a false foundation, as the facts from which these inferences were drawn had no existence but in the inflamed imagination of the sufferer, the conclusions were false. In these cases, the man was not excused if he had the capacity to distinguish between *right and wrong as to the particular criminal act*. Again, a person might be of unsound memory, incapable of understanding the relations of things, or his duty to others. But, although laboring under partial insanity, if the person understands the nature and consequences of his act, then he is responsible for it. Then if the prisoner's mind had been proved unsound, the question would be whether his mental disease overpowered his reason and his judgment, so that his act was the result of an uncontrollable impulse. In that case, it would be an act of his body, rather than of his mind. The evidence here, had been of partial insanity—melancholy, accompanied by mental delusion, or hallucination. This delusion, or morbid belief, might or might not exist; but where it really existed, it would justify acts committed under its immediate influence, which would have been justifiable had the supposed state of facts really existed. For instance, if a man should sincerely think that another, who was coming towards him in the kindest manner with a present, was advancing with a pistol to kill him—if the former should really see things through this disordered medium, and should kill his imagined adversary, with a view merely to defend himself from imminent danger, he would be justified. This form of insanity was usually indicated by brooding morbidly over one particular idea, which could not be removed; and this hallucination would exculpate a person, where the supposed state of facts existing only in his mind, were such as would justify him if they really existed in the nature of things—as in the case last stated, or in the case of a man who believes himself to act under the immediate direction of the Deity, and who acts only in accordance with such imaginary commands. To apply this principle to the case at the bar; if the prisoner labored under a delusive belief, merely that the Warden was going to punish him by a short solitary confinement, or a shower-bath not dangerously severe; then he would be fully responsible for his act. The rule was, that if the insane delusion was such as to justify the act if the imagined state of facts really existed, then the delusive belief was a justification,—or if the afflicted person were seized with a violent paroxysm of insanity, by which reason and memory were overborne, or if the act resulted from a real uncontrollable impulse, in which the mind had no share—then the act could not be deemed guilty, nor the act of a responsible person. When such a delusion was real, it might operate to excuse a crime, although there might be, in the general demeanor and action of the subject, nothing peculiar.

The questions for them to decide were these. 1st. Did an insane delusion exist in the prisoner's mind, and had it been proved? If not proved, then they would find the prisoner guilty.

2d. If the existence of a delusion had been established, did the accused act under the insane belief, that the Warden was not going to shut him up merely, but about to exercise over him such an influence, either through his food, or otherwise, as would inevitably destroy his life?

3d. Were the facts taken in connection with the mental delusion, indicative of such a diseased state of mind in the accused, as to warrant the conclusion that he committed the act under the influence of such a paroxysm of insanity, as for a time superseded his mental functions altogether, and rendered his actions uncontrollable by his will?"

The Jury stood, eight for acquittal on the ground of insanity, and four for conviction.

P. S. In the month of May, 1844, Rogers came to a violent death, by leaping from the room of the building in which he was confined, at the State Lunatic Hospital, at Worcester, Mass. The following particulars, relating to his death, were furnished by Dr. Woodward to Rogers' counsel, Messrs. Bigelow and Bemis, of Boston, and were published in the January number of the American Journal of Insanity:—

"When Rogers came to the Hospital, he was not quite well, had a frequent pulse, and suffered from restlessness and want of sleep. On the 5th, 6th and 8th of February, his pulse was over one hundred per minute; he was pale, and looked anxious. On the 30th of March, and a few days after, he had another turn of sleeplessness. He complained of headache, vertigo, and loss of appetite. He looked ill, and was irritable. This turn passed off, and he appeared as well as before; worked steadily every day, attended evening prayers, and religious service on the Sabbath, and was calm and attentive to both. About the 15th of May, he was again excited, had headache, frequent pulse, furred tongue, and bad taste in his mouth, which he attributed to bad food. He told an associate that the food offered him was a corpse ; he could smell it. He ate little, and did not work much the week of his death ; said that he saw evil spirits in his room, and smelt corpses under his bed. His suspicion that he was to be poisoned or injured in some way, became quite strong, and was increased by these delusions, which seemed to get firm hold of his mind. He did not sleep from fear, believing that constant vigilance was his only security. During this time he looked ill, appeared anxious and distressed. He desired to go to prayers the night he made the fatal plunge, and was not particularly uneasy until the services were nearly closed. He asked an officer near him to go out with him ; that is, to his room. He told him the service was nearly ended. He then applied to his attendant, who also told him the same. He said to a patient near him, in a whisper, that the room was full of dead bodies. He appeared greatly agitated, and apprehensive. Suddenly, he sprang from the window of the room, a distance of twelve or fifteen feet ; and from the injury received from the fall, died thirty-six hours after, not being conscious of anything after the leap.

"While at work in the shop, some days before his death, he appeared uneasy and suspicious, and looked wild and excited. He stepped into an adjoining shop, looked about anxiously, and returned to his work without speaking. During this week he appeared much as he did the week previous to the homicide. I have no idea that Rogers intended to commit suicide. His only object was to escape from dangers, which then seemed to cluster around him. He probably acted from impulse, and as is usual in such cases, was wholly regardless of the consequences of his movements at the time. After his death, some circumstances came to our knowledge, which led us to suppose that he had thought of attempting to escape : but as far as is known, he made no such attempt."

Dr. Buttolph, the able assistant physician to the New York State Lunatic Asylum, at Utica, adds the following remarks, in the justice of which we fully coincide :—

"Dr. Woodward further states, that there was a marked coincidence in his conduct immediately before the homicide and occasionally for many years previous, and after he came to the hospital ; especially the week previous to his death.

"These facts and his general appearance while at the Hospital, confirm the opinion expressed on the trial, that Rogers was *insane* and *irresponsible* when he committed the homicide, and when he made the fatal rush which terminated his life.

"In view of the facts presented at the trial of Rogers, together with the opinions of the medical witnesses, we are not surprised at the verdict of the jury.

"Taken, also, in connection with his subsequent history, as given by Dr. Woodward, and the presumption is very strongly confirmed, that the homicide was committed under the influence of an insane impulse."

The opinion recently advanced by judicial authority, to which we have already alluded, namely, that in order to render acts irresponsible, the accused should be proved to be insane in all respects, and on all points, exhibits a view of the nature of mental derangement at variance with the best established facts in psychological science, and seems fraught with consequences too serious for contemplation.

The extraordinary case which occurred in the city of New York, some twenty-five years ago, of the distinguished *Count Regnaud de St. Jean D'Angely*, the eminent orator of France and friend of Napoleon, is still well remembered by those who took an interest in the circumstances which marked that peculiar form of monomania. Upon an examination *de lunatico inquirendo*, which was instituted in his case, the late Tho. Eddy, C. D. Colden, and others, were summoned as a committee of the Governors of the New York hospital. It is proper to add, that the disordered state of Count Regnaud terminated only with his life, which event took place on the very day of his arrival at Paris, upon permission to return to his native country. The cause of death was believed to have been intense mental excitement.

The important letter on this case, drawn up by the late Hon. C. D. Colden (who formed a part of the commission), and addressed to Dr. J. W. Francis, we copy from Knapp's life of the late Thomas Eddy. It forms a suitable termination to this long chapter on the disordered manifestations of mind, and its interesting character will, it is believed, justify the space which it here occupies.

"I presided," says Mr. C. (p. 392), "at the execution of the commission, which authorized me, and two other commissioners (who they were, I cannot recollect), to hold an inquest, as to the mental condition of the Count. When the commission was opened, the Count appeared in person. There was nothing in his manner that indicated in the least an aberration of mind, but there was a fierceness and restlessness in his eye which might not have been noticed, had it not been known that he was the subject of the inquiry we were authorized to make. As soon as the nature of the proceedings was explained to him, he, in a very formal and professional manner, objected to the form of the inquiry, and attempted to prove that it was illegal. As soon as he was informed that the commission had issued, he had possessed himself of a number of what the lawyers call books of practice, and seemed to have devoted his attention particularly to Harrison's Chancery Practice, from which he undertook to prove that the proceeding should be done by bill, which he should have had an opportunity of answering. He gave us the history of our chancery practice as derived from England, where it had been taken from the civil law. His address to the commissioners showed that, in the space of a few days, he must have read a great part of the books he had in his possession; and that, however the other faculties of his mind might be affected, he retained his memory in great vigor. He did not confine himself, in what he said, to the ordinary bounds of law argument, but gave expression to his feelings in a speech of very considerable length, which, both as to manner and language, was highly oratorical; and though, from his ignorance of the laws of this country, he had assumed false premises, there was nothing illogical or irrational in his argument; on the contrary, if he were mad, there was certainly method in his madness. Finding that his objections to the form of the proceedings could not prevail, he submitted to the decision of the commissioners with great complacency. His course was, when a witness testified to some act of his, calculated to show an alienation of mind, to comment on the testimony, and give explanations immediately. In some instances, he showed great art and ingenuity. It was proved, that he happened to be passing the Park at a time when they were cutting the grass. He bargained for the whole crop, which amounted to several cart loads, had it transported to his house, and stowed away in one of his bed-rooms ; when the testimony of this witness was concluded, he said, " Gentlemen, I will give you a very satisfactory explanation of this fact ; goat's milk had been prescribed for me. Just previously to my passing through the Park, I had purchased two of these animals from a ship, that had then terminated a long voyage. Seeing the grass in the Park, it occurred to me, how agreeable some of it would be to my poor goats. I made the purchase of so many tons, not knowing exactly what a ton was, but supposing it might be something like the bundles in which the same article is sold in France. I had directed my servant to let it be put away in a vacant room in my house, and when I saw it there, I was as much surprised at the quantity as you can be, and still more, to receive an apology from the man of whom I made the purchase, when he came for payment of his bill, for not delivering as much as he had bargained with me for, as he said the produce of the Park was not as many tons as he had calculated it would be. So you see my kindness to my poor goats, and my imperfect acquaintance with your language, are now to be tortured into evidence of my insanity."

It was proved by several witnesses, that he had disclosed to them a plan in which he was engaged, to rescue Bonaparte from his captivity at St. Helena. That he had stated to them, that he had a number of steam boats prepared for the expedition. To this he gave the following explanation : " It is true that some of my friends in Europe," said he, " had conceived such a project, and wrote to me, to ascertain whether I could procure the steamboats in this country. I applied to Mr. Livingston, who recommended me to a person, whom I engaged to construct several models, and these are the steamboats of which I spoke to the witnesses. I endeavored to engage them to join in the expedition, as I intended to do myself, when the plan should be matured. So that you see it is but a slight misunderstanding that has led the witnesses to testify that I had represented to them, that I had steamboats in readiness for such an undertaking." Count Real was one of the witnesses who were examined on this point. Immediately after he had concluded his testimony, St. Jean D'Angely took Count Real to one side, and said to him, as he afterwards testified, " Never mind all this, I have the steamboats all prepared ; I have a competent force at Brooklines, awaiting my orders. But you do not believe me to be so mad, or such a fool, as not to be able to keep my course secret."

When Count Real was called to the book as a witness, his name, more than that of the Count St. Jean D'Angely, was in the mind of the person who administered the oath, and instead of saying, as he ought to have done, " the evidence you shall give in this matter, touching the lunacy of Count St. Jean D'Angely, shall be the truth," &c., he said, " the evidence you shall give, touching the lunacy of Count Real," &c. St. Jean D'Angely burst into a loud laugh, and said to Count Real, " ah, my friend, you see what is coming. It is my turn now, but it will be yours the next. The gentleman could not have made such a mistake, if he had not in his pocket a commission to inquire whether you are in your right senses ; and no doubt, these witnesses intend to prove, that every friend of Bonaparte that comes to this country is mad, and to shut them up, as they have done me." I dare say, I could recollect several other anecdotes of the same character, but I find they cannot be told in writing in a few words. These may be sufficient to show that the case of St. Jean D'Angely was one of those, where certain mental faculties may be exercised, as if the understanding was unimpaired, when the person is, as the jury found the Count to be, a lunatic.

Most respectfully yours,
CADWALLADER D. COLDEN.

RULES FOR THE EXAMINATION OF PERSONS SUPPOSED TO BE OF UNSOUND MIND, AS LAID DOWN BY MR. GUY.

"1. Examine the general appearance of the individual, the shape of the head, the conformation of the body, the expression of the countenance, the temperament, the gait and movements, the speech, &c.

"2. Ascertain the state of the general health, especially of the functions of the organs of digestion, the appetite, the bowels, &c. Does the person sleep well; or is he disturbed by dreams, or unusually restless? Is he susceptible of heat and cold, or the reverse?

"3. Inquire into the history of the person's family. Has he any hereditary predisposition to insanity? Have any members of his family been subject to fits, or have they betrayed any marked eccentricity of behavior?

"4. If the mind appear unsound, how long has it been so?—from birth or from infancy? If the unsoundness has supervened later in life, did it follow any mental shock, or long-continued anxiety of mind, any severe bodily illness, or repeated epileptic fits? Have the habits of life been regular or the reverse? Has he indulged in the use of intoxicating liquors, or exposed himself habitually to causes of excitement?

"5. Does the present state of mind differ materially from that which existed when the party was reputed of sound mind? Have his feelings, affections, and domestic habits, undergone any marked change?

"6. When the inquiry is directed to ascertain the capacity of the mind, inquire as to the person's knowledge of his family, and of the relation in which they stand to him; as to his memory of persons recently seen, and of events which have recently transpired. Does he know his own age? Is he conscious of the lapse of time, and can he name the day of the week, the month, the year, &c.? Does he know the name of the reigning monarch, and of those persons who are most frequently subjects of conversation? Ascertain his knowledge of the simple operations of arithmetic, and of the value of money. Can he repeat those simple forms of words which are in general use, as the Lord's Prayer, &c.? Note his power of attention, and distinguish carefully between mere negative or affirmative answers to leading questions, and such as indicate judgment and reflection. If the inquiry relate not to the capacity of the mind, but to its soundness in other respects, endeavor to discover the existence of delusion by conversation directed to those topics which are most likely to interest and excite the mind. If the unsoundness affects the moral feelings rather than the intellect, make the relations and friends of the individual the subject of conversation. In cases of supposed moral insanity, inquire into the motives which may have led to the commission of the act of which the party is accused.

"7. When undergoing examination in a court of law, the medical witness should carefully avoid all definitions of insanity, on the plea that mental, like bodily diseases, do not admit of definition, but are subjects for description ; and that diagnosis in most cases must depend upon a comparison of several combined symptoms. The medical man should also insist on having sufficient opportunity of forming his opinion. He should rarely content himself with a single visit, and in cases of difficulty should require the party to be placed for some time under his inspection.

"In other respects, the same observations apply to the examination of persons supposed to be of unsound mind, as to other investigations which the medical man may be required to make."

PART SECOND.

Critical Analysis.

Art. VIII.—*An Essay on Curvatures and Diseases of the Spine, including all the forms of Spinal Distortion: to which the Fothergillian gold medal was awarded by the Medical Society of London.* By R. W. Bampfield, Esq., one of the Surgeons to the Royal Metropolitan Infirmary for Diseases of Children; Fellow of the Medical Society of London; Author of an Essay on Hemeralopia, or Night Blindness; of Practical Treatises on Tropical and Scorbutic Dysentery, &c. Edited by J. K. Mitchell, M.D., Professor of the Practice of Medicine in Jefferson Medical College of Philadelphia, &c. &c. Philadelphia: Ed. Barrington and Geo. D. Haswell. 1845. 8vo., pp. 223.

When Mr. Bampfield first put forth his work on the Spine, twenty years since, it was deemed authority on the subject; and now, when reprinted in America, and edited by Professor Mitchell, of Philadelphia, there are only appended twenty notes, contained in less than one hundred lines, being equal to two of the two hundred and twenty-three pages of the text,—we conclude that Mr. Bampfield is, in Professor Mitchell's opinion, authority still.

The Fothergillian medal being awarded to Mr. Bampfield for this essay, was a circumstance which brought the book before the profession in a favorable manner; it *was* so received, and has excited from its birth to this time, more influence than any similar work.

We may presume that Professor Mitchell, from the meagerness of his notes, is either unmindful of the progression in the treatment of spinal affections, or that, in his opinion, no improvements have been made; to whichsoever cause we attribute the scantiness of his notes, we, in common with the readers of the work, will greatly lament the total absence of all practical precepts, beyond the recommendation of the use of *corsets* and the employment of the professor's "spine-car."

The essay is divided into fourteen chapters and an appendix, containing a full account of all the diseases of the spinal column and its contents.

Since the first publication of this work, more correct information has been *distributed* to the profession at large, so that there exists no probability of confounding the lateral and gradual posterior curvature, which are supposed and generally acknowledged to arise from muscular debility; from the *angular* curvatures, which arise from caries of the vertebræ. The

Nosology, as given by the author, is divided into curvatures arising, 1st, from caries of vertebræ, terminating in angular curvature; and, 2d, into gradual deviations, of which there are three varieties given—

a. *Excurvation.*
b. *Incurvation.*
c. *Lateral Curvature.*

This is the nosology of curvatures; the remaining diseases of the spine are treated of under the following heads:

"*Fractures, Concussions, and Dislocations of the Vertebræ.*"

"*Spina Bifida, and some other congenital defects of the Spinal Conformation.*"

"*Inflammation of the Medulla Spinalis and its Membranes.*"

"*Of some other affections of the Spine; and of some diseases which are said to originate in its derangement.*"

The following extract shows the author's views of the various curvatures:—

> "The distortions and projections of the spine may be still divided into two species, one of which will be denominated curvature of the spine, and the other, the angular projection. Of the former there are three varieties; the first of which for the sake of brevity it is proposed to term an excurvation of the spine, or curvature outwards;* the second, an incurvation of the spine, or curvature inwards; the third, lateral curvature, which has with propriety been generally employed to denote the curvature on either or both sides. The angular projection has not any varieties.
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> "Curvatures of the spine may take place in any portion of the spinal column; they, however, most commonly occur in the dorsal vertebræ. A curvature of the spine forms the segment of a circle, the arc of which is more or less regular and perfect. The most perfect curves are formed by the dorsal vertebræ, which frequently include the whole twelve. There is an outer line of curve, commonly termed the convex side of the curvature, and an inner line of curve, as often named the concave side. The curve may be divided into two extreme points, and a centre or middle, which is its angle. This centre of the curve becomes the centre of pressure from superincumbent weight, as will be proved in the sequel, and is an expression to be remembered. The angular projection generally takes place in the lower dorsal or lumbar vertebræ, and commonly involves some of the dorsal. To understand the form of this projection, it is necessary to define that the term spinal line, which will be so often employed, means the line the vertebræ or spinal column ought to make and does make in its natural and undeformed state, and differs somewhat from the meaning attached to the term, axis of the vertebræ. The angular projection of the spine forms the projecting line of an acute angle with the spinal line, the quantity of which varies in the degree the spinous processes project beyond their natural situation. The spinal line, the projecting line, and the line formed by the lower surface of the most projecting vertebræ, form a triangle, of which we will consider the last with its spinous process to be the base.
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> "Curvatures of the spine have been denominated either temporary or permanent. Temporary curvature implies a distortion of the spine removable at will, sometimes with and sometimes without the aid of mechanical assistance. Of this kind are inflexions forward with excurvations from paralysis or debility of the muscles of the back; lumbar incurvations, when in the erect attitude, in cases where there is permanent contraction of the flexor muscles of the thigh; and almost all curvatures are temporary in their incipient stage. In all such

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* Excurvation is not a genuine English word: it is trusted, however, its use will be excused; for, as incurvation very aptly expresses one condition of the curved vertebræ, it was thought excurvation might be as fitly employed in contradistinction.

instances the structural parts of the spinal column still preserve their relative proportions, and not any of the bones and intervertebral substances have been reduced to a cuneiform shape, or entirely destroyed. Permanent curvature is generally intended to imply a distortion not removable at will or at once, even with the help of mechanical power, in which the structural parts of the spine have lost their natural proportions, and some of the bodies of the vertebræ or intervertebral substances have become cuneiform or destroyed; but which admits of the possibility of their being ultimately restored. Permanent curvature, however, must be perpetual, while many of the bodies of the vertebræ are destroyed or taken away, either by caries or absorption, or where progressive absorption of the cartilages occur (as in old age), after nature has withdrawn the power of regeneration.

"Curvatures and projections of the spine are most commonly formed during the growth of the body, and from the age of one to twenty-one years; they however occur, with less frequency, from this age to that of forty years, beyond which period of life Mr. Pott says he has never seen it; but my worthy friend, Mr. C. Hutchison, did me the favor to show me a case of excurvation of the spine in Elizabeth Charles, at the Cock and Bottle, in the Strand, who was forty-six years old. The excurvation of old age is obviously formed at a more advanced period.

"Since the days of the celebrated author, whose name is by a sort of prescriptive right associated with this disease, so that our French neighbors denominate it 'Maladie de Pott,' it has been, until very recently, fashionable to admit, that wherever there is curvature of the spine, there must exist caries as a cause, arising chiefly from scrofulous action; but the first part of this position is generally incorrect and untenable, as the cases of curvature without caries are far more numerous than those in which caries occurs; and if the nosological division of those diseases already proposed, had not appeared more perspicuous and convenient, I should have adopted the nosological distinction of curvatures into those with, and those without, caries."

To the young and inexperienced practitioner, it becomes a matter of vast moment to remember and understand the momentous difference between the curvatures caused by *caries* and those produced by accidental causes; such as bad positions, and any cause terminating in muscular debility or contraction. Strange as it may appear to the initiated, such errors are not rare; the angular cases are subjected to stretching; and the lateral to inaction, by the ignorant and pretending.

A more fatal error than this, cannot be committed in the whole range of surgical practice; the two cases require directly opposite treatment; and wo be to the surgeon who mistakes the cases and treats them indiscriminately.

The second chapter is divided into seven sections, and is devoted to *excurvation of the spine*, its history, symptoms, and the effects on the bony and external soft parts, as well as on the spinal marrow and thoracic and abdominal viscera.

"SECT. I.—*History and Symptoms of this Disease.*—This variety of spinal distortion is more frequently formed than any other;* and on this account, may be first considered. It is induced during childhood, puberty, and more rarely in adult age. In old age the curvature of senility sometimes occurs, and might be generally considered a natural deformity rather than a disease, and will be alluded to for the sake of illustration. The occurrence of this variety of disease at various periods of life, and from different causes, occasions the symptoms to differ in some respects, but not so materially as to prevent me from attempting a general history of the progress and effects of the complaint.

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* [We are unable to admit the greater frequency of this form of spinal distortion in girls. It is so in boys, who are seldom affected with any other form; but girls are much more frequently attacked by lateral curvature.—ED.

"The commencement of excurvation of the spine is sometimes marked by pain of the vertebræ about to be involved in the curvature, which is more particularly felt on using exercise, in the erect posture, or may be, at all times, excited by pressure on the spinous processes; in the latter case, an adult would shrink from the pain and mention it; a child would cry. Should inflammation of any of the constituent parts of the vertebral joints exist, the pain would be of a more permanent nature or of more frequent recurrence, and the patient will be considerably relieved by assuming the horizontal posture, and in a less degree by bending the spine backwards. The majority of cases are not preceded by any pain of the vertebræ, that attracts so much attention, or occasions so much suffering as to lead to voluntary complaint. In some cases, chiefly in those accompanied with inflammation, if a spunge wrung out of hot water be passed along the spine, it will create increase of heat and pain in the part disposed to curvature, but this is not a result obtainable in the generality of cases. An adult generally states the pain to be of an obtuse kind and feeling like a weight, but it can only be inferred that a young child feels pain by its crying, when made to sit up or walk about. At this period, if the spine be accurately examined, particularly if it be bent a little forwards, some of the spinous processes of the dorsal vertebræ, which are the seat of pain, may be observed to project more irregularly than the rest, so that they stretch the skin over them, and make it appear white and shining, resembling the phenomenon of the stretched skin over the knuckles of a clenched fist; yet this appearance of the curvature at its commencement is only of a temporary nature, as by laying the patient in a proper horizontal posture, and using mechanical aid, the vertebral column can be restored to its spinal line. About the time the above evidence of incipient curvature is manifest, many adults will complain of a sense of weakness in their back, of a lassitude that disinclines them from exertion, and of fatigue being soon induced by exercise, all of which dispose them to seek repose and avoid motion. A child, if he have not previously gained the use of his legs, has the ability of using the lower limbs deferred long beyond the usual period children should walk, and if he had acquired the power of walking, he will gradually lose that remarkable spirit of activity and endless motion peculiar to children, and become listless and languid, seeking its mother's lap for a resting-place. Should these symptoms of weakness and indisposition to exercise lead to the frequent adoption of the recumbent posture, the curvature will increase very slowly, or its progress may be arrested for a time. Should, however, the patient not lie down more than usual, but be seated in a chair during the day, where the vertebræ will have to bear the superincumbent weight of the head, &c., especially if he walk about as much as he is able, the curvature will advance with considerable rapidity, and after a little increase, if the patient be placed on his feet, he cannot maintain the vertebral column in the erect attitude, but inclines the upper part forwards; and he moves with a slow, hesitating, tottering gait, and is soon tired, or he cannot direct his steps to the proper point, and he stumbles, trips or crosses his legs, and falls down crying.* In this state a child dreads to be put down, and when on his feet will, with tears, cling to his mother or nurse for support, and if deprived of it, he will totter, his knees will bend, and he will soon fall, unless caught. The lower extremities gradually diminish in size, as the curvature advances, and frequently lose part of their natural sensibility and temperature; the muscles exchange their plump and firm feel, for a softer one, and their power daily decreases. The patient will often sit with his legs crossed, and in bed will sometimes experience pain in his knees, and convulsive action of the muscles of the thighs, which are more particularly felt and described by the adult, whose loss of muscular power is more generally accompanied with a sense of coldness and diminished sensibility and firmness of the extremities. If a palsy of the lower limbs be now induced, there is of course an end to locomotion; the muscles and cellular texture of the extremities waste and wither; the limbs become flaccid and cold, and, if lifted up, will fall down like a mass of inanimate matter; the joints are more rigid than in ordinary paralysis, and the skin frequently retains some power of sensation. This calamitous effect or symptom, however, only supervenes occasionally, for the majority of adults and minors retain sufficient muscular power of the extremities to enable them to move about in their room, with the artificial aid they can derive from the chairs, tables, and other supports that are available in their route. Should they attempt it without such extrinsic aid, or the use of crutches, or the support of friends, they can only walk a short time with such a degree of bent posture, as the curvature necessarily occasions, and suddenly lean forwards and support themselves, by placing their hands above their knees; and the vertebral column then becomes curved to a great extent.—Most patients, if not prevented by paralysis, or restrained by medical advice, retain the disposition, which they indulge in, to sit up and walk about a little through the whole progress of the disease; but where *scrofulous caries* is the cause of the curvature, the inclination to move about very frequently forsakes them, and they sit in a chair, listless, languid, often asthmatic, or affected with dyspnœa, and endeavor to take off the superincumbent weight of the head, by placing the elbows on the table before them, or on the arms of their chair, and lodging their lower jaw on the thumbs (as on a crutch) extended across it, with the fingers directed up to the side of the face or ears. If the patient be confined to the horizontal posture, more especially the facial, when the excurvation is in the incipient stage, no permanent or perpetual curvature will ensue, provided its use be persevered in, until the dorsal muscles have recovered their energy, or the disposition to inflammation and scrofulous action of the vertebræ be removed. Should the patient incautiously continue to sit up and walk about, a curvature of the spine ensues and gradually increases: the first appearance of projection has been described, and in a short time after, one, two, or three spinous processes of the dorsal vertebræ may be observed to project beyond the spinal line a quarter or half of an inch; after this the spinous processes of the vertebræ above and below those previously projecting successively protrude, until many or the whole of the dorsal vertebræ form a curve, and are projecting backwards beyond the spinal line from an inch to even two inches, the chord line of which does not admeasure much more than one half of the length the vertebræ of their natural dimensions and breadth would occupy. The lower cervical vertebræ naturally incline forward from their junction with the first dorsal; but in the state of the dorsal curvature just described, they become placed almost horizontally in the erect attitude of the body. As the curvature increases, the spinous processes of the dorsal vertebræ gradually separate from each other; but the greatest degree of separation takes place about the middle of the curve, where the space of half an inch is left between them, and the forefinger can be easily inserted. When they are separated at this distance, it may be always inferred with much probability, if not certainty, that the horizontal surface of the bodies of the vertebræ, of which these spinous processes are corresponding parts, are either greatly or wholly absorbed, as well as the intervertebral substances between them. Excurvation of the spine is generally accompanied with distortion of the costæ and sternum. During the formation of an excurvation, the general health becomes impaired, and particular organs and functions suffer derangement, the symptomatology of which cannot be very briefly disposed of; for although the description drawn may enable the surgeon to distinguish the disease in its different stages, yet it is necessary to a due comprehension of it, to enumerate and examine the evils it brings in its train, and to take a review of many of the morbid effects it produces on the various structures, systems, organs, and functions of the body."

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* [An awkward gait, a tendency to totter or fall, or to drag one leg, are among the earliest symptoms of spinal disease; and are present often, long before any distortion is discoverable. Previously to these symptoms, there often exists a sense of weariness and a disinclination to physical exertion.—Ed.]

We have extracted this whole section for the double purpose of giving the general symptoms of spinal curvatures, and of showing how much Professor Mitchell is to blame for not correcting the errors set forth by the author. In this history of the symptoms of *excurvation*, the author has jumbled up the symptoms of spinal irritation simply, and of lateral curvature, as well as the more formidable angular curvature from caries. Indeed, in this country, simple excurvation is a very rare disease; that is, independent of that form arising from old age, or in rachitic children.

Mr. Bampfield, being a sort of pioneer, is more excusable than his editor, with twenty years' later knowledge.

We appeal to our readers to uphold us in the position that simple excurvation is very rare. When the train of grave symptoms, detailed above, are present, there can be no question but that organic changes are going on; and if the curve, from debility, does not progress to angular projection, it is because the caries of the bodies of the vertebræ had, from medical treatment or the recuperative powers of the constitution, been arrested.

In general softening of the bones there may be excurvation, though in a vast majority of cases in this disease, as well as in rachitis, incurvation rather than excurvation will ensue.

It appears more strange that the author and editor should both include opposite conditions of the spine under the same description, when, in another part of the book, they are described separately. If Mr. Bampfield should revise his work at this day, it would indeed be passing strange if he should continue to insist upon the presence of caries in most cases of excurvation without angular projection.

SECTION II.—*Affections of the Muscles.*—In this section the author describes the general atony of the muscles of the back, the lassitude and great desire to lean on any near object for support. On dissection, the muscles attached to spinous and other processes of the vertebræ are found to be pale and diminished in size: and as the processes are separated from each other in excurvation, then the muscles attached to them are elongated.

The muscles on the anterior aspect of the trunk, from the inclination forwards, become shortened, and thus tend to increase the spinal excurvation and impede respiration. All the muscles of respiration, including the diaphragm and the intercostals, from debility and unnatural contraction, imperfectly perform their functions, and the body is consequently imperfectly nourished for want of properly oxygenated blood.

The following extract, to our mind, conclusively shows, that the author does not discriminate sufficiently excurvation from muscular debility from excurvation accompanying caries of the vertebræ.

> "The muscles of the upper extremities are sometimes affected, in excurvation, with numbness, subsultus tendinum, chorea, and even convulsions, as are the muscles of the lower extremities. The muscles of the lower extremities sometimes become affected with great weakness or total paralysis, but the degree of weakness or the induction of paralysis does not appear to depend upon any particular degree of curvature, or to bear any specific relative proportion to it, *for many cases of extensive curvature are not attended with paralysis, whilst some of slight curvature are accompanied by it.*
>
> "The power of the sphincters of the bladder and rectum is, in some few cases, much diminished or lost, so that there is an involuntary discharge of urine and fæces."

The lines in italics we have made such, to emphasize the fact that large curvatures are seldom or never followed by grave nervous disorders; but that *small* angular curvatures, doubtless arising from caries, are, in a majority of cases, accompanied or followed by temporary paralysis. Far be it from us to suppose Mr. Bampfield ignorant of these distinctions; we only marvel that, in the present state of knowledge, they were suffered to remain unexplained in this edition.

SECTION III.—*Affections of the Bones of the Spine and Chest.*—This is a very important and truly philosophical section; and were it not for its length, we would most certainly copy it entire; as this notice would be too extended if we followed our inclination, a few extracts must suffice.

> "The vertebral column is so constructed, that when it is placed upright, the upper or cervical part of it inclines forward, whilst the middle or dorsal, and the base or lumbar portions are nearly perpendicular: let the head be placed on the apex of this column, and it is retained in this position by muscular power, counteracting superincumbent weight. Form an elastic column of 24 joints, bearing an accurate resemblance to the human spine, without any mechanical power to counteract the effects of superincumbent weight; let the base be a fixed point, and the apex and other parts moveable ones; affix a weight equal to that of the human head to its apex, and the column must bend forward, because it must take the direction the natural inclination of the upper part of the column gives it, and, by its form, that inclination is forward; the weight superadded could not elevate the inclined or depressed portion, or bring it upright or reflect it backwards.* When the superincumbent weight has thus inclined the upper part of the column forward, suspend weights at certain distances and angles on each side of the upper parts of the column equal to the weight of the ribs, thoracic contents, muscles, and integuments, and the column will be bent into a greater degree of curvature, the most convex part of which will be near the middle of the column, where also the centre of the greatest pressure will be; and hence it is, that, in excurvation and lateral curvature, the central vertebræ of the whole column form the most projecting parts of the curve or points of greatest convexity. For instance, there are 24 vertebræ, 7 cervical, 12 dorsal, 5 lumbar; consequently the 5th and 6th dorsal are the middle or central ones of the whole, and these with the 4th dorsal generally constitute the most protruding points of the curvature. Let us endeavor to explain how it occurs that the 4th dorsal vertebra becomes the point of projection oftener than the 7th, and the attempt will also serve to show how the spinal column assumes the curvature outwards. Take an elastic conical pyramid, like the spine, whose base is a fixed point, and whose dimensions gradually diminish in size from the base to the apex; apply a weight or bending force to its apex, so as to bend it down, and an arc will be formed whose greatest convexity will project beyond the perpendicular line it had when straight; it will also be perceived, that it will bend more above its centre than it does below it, and hence it is, that in excurvations of the spine, the convexity projects beyond the spinal line posteriorly, and although the 4th and 7th dorsal vertebræ are at a relative or equal distance from the middle of the spine, yet the former is oftener the centre of convexity than the latter, and the spinous processes most distantly separated are generally those of the 4th and 5th dorsal, and leave the greatest space between them, whilst anteriorly the bodies of the 4th and 5th dorsal vertebræ are those the most absorbed in excurvation. It may be objected, that all analogical illustrations derived from mechanics must be imperfect, but take away the moving powers from the bones, for instance of the back, or let them be paralysed so as to be rendered unequal to their movements, and it may be asked, what does the spine present but a complicated piece of motionless mechanism? Incurvation is a very infrequent effect of superincumbent weight, because the spine does not naturally incline backwards, and be-

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* If this artificial column were placed exactly perpendicular, the weight of the head would not occasion it to deviate from that line: incline it from the perpendicular to any other direction, and it would bend the column in that direction to some given extent.

cause the bony bridge and spinous processes firmly resist a backward inflection, whilst the elasticity and compressibility of the intervertebral cartilages favor the inflection forwards."

The author's description of progressive absorption and caries is beautifully given in the following extract:—

"The destruction of the vertebræ of the spine is accomplished by the two different modes of action, which after death present dissimilar appearances. One mode is by the induction of caries or ulcerative absorption; the other is by progressive absorption. The bodies of the vertebræ are almost exclusively subject to the effects of these two modes of destructive action, and of course the bony bridge and processes seldom suffer from either, but they nevertheless undergo changes which are commonly of a different character. The intervertebral cartilages are also destroyed by ulceration and progressive absorption. Caries of the bodies of the vertebræ is, in general, the result of that slow scrofulous inflammation, which peculiarly invades the cancellous structure of these, and the articulating extremities of other bones, in which case the remaining portions of the bodies of the diseased vertebræ are often soft, and may be easily divided with a common knife. At first, this inflammation produces an appearance of increased vascularity in the bone; ulceration soon follows; the earthy matter becomes absorbed, and the bone is thereby rendered soft and spongy; at length the secretions in the cancelli become also absorbed, and a deposition of a caseous, or thick, curdy matter, often yellow, fills its place. Caries also ensues from chronic common inflammation; in which case, the portions of the vertebræ contiguous to the carious part are unusually vascular, and of a dark color; but they preserve their natural texture and hardness. I am informed by an eminent surgeon of this metropolis,* that he has dissected two curved spines, in which the bone remained hard, but was so brittle, that pieces might be struck off in splinters with the greatest facility. Caries may take its origin in any portion of the circumference of the bodies of the vertebræ, or on their horizontal surfaces; in the latter case, the ulceration sometimes spreads from the intervertebral cartilages to the bony surfaces in contact with them. The bodies of the vertebræ are destroyed in the most irregular manner, and the drawings of different specimens to be found in the works of Mr. Ford,† and more modern authors, the preparations in the different museums, and dissections, amply display these irregularities. Sometimes excavations are formed through the body, sometimes the caries destroys the perpendicular, sometimes the horizontal surfaces on the anterior portions or the sides, sometimes the destruction is more regular and leaves a surface tolerably smooth, more commonly the carious vertebræ are jagged, fissured, irregular, and full of cavities, filled with purulent and curd-like matter, &c. Caries of the vertebræ is sometimes called dry, that is, the bone is destroyed without producing pus."

The formation of psoas abscess is graphically delineated as follows:—

"Caries of the vertebræ very often gives rise to inflammation of the soft parts around and contiguous to them, which terminates in suppuration. Hence, abscesses are formed, which first collect opposite the carious vertebræ;—if these should be the dorsal, the abscess will collect in the posterior mediastinum, and the pus may separate the pleura from its natural adhesions, and by pressing on the lungs occasion inflammation of the pleura, and distressing dyspnœa; or it may burst into the thorax and occasion death. If the lower dorsal or lumbar vertebræ be the seat of caries, the collection of pus may insinuate itself between the crura of the diaphragm, may separate the peritoneum from the diaphragm or its other natural adhesions, or it may penetrate through the peritoneum among the intestines, and excite peritonitis that may terminaate in death. The collections of pus, even when as high as the upper part of the posterior mediastinum, sometimes gradually insinuate themselves along the spine, and present anteriorly in the course of the psoæ muscles or of the spermatic cord, or these abscesses may take an outward direction, and break posteriorly on one side or the other of the vertebræ, so as to become what are strictly denominated lumbar abscesses.

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* Mr. Brodie.

† On the Hip-joint.

"These abscesses now and then take a course to the verge of the anus. They also have been found to penetrate through the theca vertebralis and insinuate themselves in the course of the medulla spinalis. Abscess, formed among the psoæ muscles, sometimes produces caries of the spine; hence, these two affections reciprocally produce each other:—Yet caries of the vertebræ does not necessarily produce psoas abscess, nor do lumbar abscesses necessarily produce carious vertebræ. It has been already observed, that caries of the spine is occasionally communicated from a diseased and ulcerated intervertebral cartilage; caries of the vertebræ, however, much oftener propagates the ulcerative absorption to the intervertebral substance. When the ulcerative absorption of the bony parts of the spine is occasioned by the pressure of tumors, the bone is frequently absorbed, whilst the cartilage remains entire, or is but very little affected, so that it appears to imbed itself in the substance of the tumor. When two or more vertebræ are entirely removed by ulcerative absorption from any other cause but the pressure of tumors, the intervertebral substance has been destroyed to the same extent in the cases that have come under my experience, and have been subsequently submitted to dissection."

This and much more of equally interesting matter, is contained in this section: it cannot well be abridged, nor easily improved.

SECTION X.—*Affections of the Spinal Canal, Medulla Spinalis, and Nerves.*—The canal of course follows the curve of the vertebral column; but a remarkable fact constantly ensues, that is, the smoothness of the canal, and entire want of roughness infringing upon the medulla spinalis.

This is a wise and merciful provision of the Creator; for when we remember the tremendous consequences ensuing upon jagged bone coming in contact with cerebral or nervous matter, we cannot fail to revere the author of the above provision.

When excurvation occurs in childhood, the diseased vertebræ are arrested in their developement, and the canal at this point is smaller than elsewhere.

When from destruction or separation of the vertebræ, the medulla is not protected by bone, the integuments become cartilaginous, in order to protect the vital parts within.

When the canal is diminished, of course the medulla is also smaller at such point; and the nerves passing from this point to their destination, partake of the diminished power. This will account for the early pain at the pit of the stomach, and partial paralysis, before there is much perceptible destruction or absorption of the bony canal.

We leave the following extract to be explained by the learned physiologists:—

"The interruption or destruction of the continuity of the spinal marrow in excurvation or other curvatures is not a frequent occurrence; three cases have, however, been recently related, one by Dr. Rullier, in Magendie's Journal, in which the spinal marrow was converted into a fluid along the space of the two inferior thirds of the cervical portion and the upper third of the dorsal, and two by Dr. Olivier.* In a child of 8 or 9 years, a complete deficiency of spinal marrow existed from the 9th dorsal to the 1st lumbar, that is, about four inches. In the other, a girl of 13 years, at the lower part of the dorsal region, the nervous pulp, reduced to a putrid state, was converted into a pultaceous matter, and deficient for four or five lines. In the latter cases, the vertebræ were affected with scrofulous caries. It is a most remarkable circumstance, that, in all those cases, there was not paralysis of the lower extremities."

SECTION V—*Is devoted to Effects on the Spinal Ligaments.*—These, in slight cases, remain free from inflammation; but in some they are inflamed and absorbed, and when an anchylosis occurs, they are converted into bone.

SECTION VI—*Treats of the Affections of the Arterial and Absorbent Systems.*—The derangements arise principally from the presence of large aneurismal sacs, and displacements of the heart, aorta, and thoracic duct. In consequence of such displacements, the heart will palpitate violently, and the viscera be imperfectly nourished.

SECTION VII—*Is devoted to some of the Affections of the Thoracic and Abdominal Viscera, and the Urinary Organs.*—We have only to remember the misplaced condition of all the viscera, and the impinged condition of the nerves supplying them, to fully appreciate the following catalogue of evils consequent upon spinal excurvation.

> "When the perversion of the natural situations of the viscera, of the great blood-vessels, of the ganglionic system of nerves, and of the thoracic duct, is contemplated; when the structural alterations and deviations (of position) of the lungs, heart, liver, and some other of the viscera, aorta descendens, venæ cavæ, thoracic duct and some of the nerves are considered; when the derangements of the spinal cord and the spinal nerves, of the abdominal and intercostal muscles and diaphragm, and the curvature and shortened spine are weighed; when we view the spinal marrow, thus deranged, as the principal seat of sensation and motion, and know the spinal nerves are distributed to all the viscera contained within the thorax, abdomen, and pelvis, and supply them with the nervous energy necessary to their important functions, as well as to the muscles of the upper and lower extremities, back, chest, diaphragm, and all the other constituent parts, besides possessing a connexion with the nerves of the brain through the ramifications of the great sympathetic; when we reflect on the aggregate of disorder and displacement of the frame-work and the frame, we cannot be astonished at hearing an appalling catalogue of maladies which are attendants or consequences of spinal deformity and disease. A catalogue, whose history and treatment to pursue and dwell upon in this dissertation would make it almost endless; for I have known the head affected with severe pain, occasionally predisposing to phrenitis and death; the eyes affected with convulsions, and imperfect vision; the ears with deficient hearing; and I have witnessed, as companions to curvatures of the spine, dyspnœa, asthma, congestion, and inflammation of the lungs; imperfect oxygenation of the blood; palpitation of the heart; aneurisms of the aorta; a corded tightness across the epigastre: gastrodynia; indigestion; loss of appetite or a vitiated state of it; torpor of the liver, or deficient secretion of bile; constipation; discolored fæces; morbid secretions of the kidneys; involuntary discharge of urine and fæces; a variety of nervous feelings; epileptic fits; numbness and coldness of the extremities; tic-douloureux-like pains about the joints of the lower extremities and muscles, and of the posterior part of the ileum; paralysis of the upper and lower extremities, and an almost universal torpor. When all these circumstances and symptoms are maturely deliberated

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* See Obs. v., p. 143, and Obs. xlix., p. 339. De la Moelle Epinière et de ses Maladies, par C. P. Olivier, D'Angers.—Paris, 1824.

> upon, we cannot be surprised that the functions of the various organs, muscles and vessels, are disordered; we should rather be lost in admiration at the resources of nature, which enable some patients to endure many of them without much expression of suffering, during the gradual progress of the morbid changes, and which resources finally accommodate the viscera to the new state of structure, and enable them to carry on their offices so well, that some such deformed patients eventually enjoy a good share of health and animal spirits, and mental energy and bodily strength, during life, and are only unlike their fellow creatures in their deviations from the beautiful symmetry of structure, the fair and admirable form, and matchless proportions, designed by the benevolent and wise *Creator of all.*"

Thus far, if our author had clearly, in course, distinguished between caries of the vertebræ and curvatures arising from other causes, he might have defied better description. By the learner, we feel that we shall be borne out in our strictures upon this point.

Chapter III.—The causes of curvatures are here entered upon; but the same mixing up of varieties is continued, and the same sentence gives the same causes as producing curvatures from muscular debility, from caries, and from deposits of bone between the cartilages.

We will endeavor to separate the causes, as given by Mr. Bampfield, according to the varieties of curvatures.

> "Contusions and shocks from falls, sprains of the vertebral joints, scrofula, rachitis, syphilis, rheumatism, careless and habitual mal-positions of the body, particularly during its growth; malformation or irregular and unnatural growth of bone; cerebral affections; muscular debility, and old age, may be enumerated among the remote causes; and, of these, contusions, and shocks from falling, have obtained a sort of popular belief of their being common causes, for most parents trace the origin of their children's distortions to nurses, or some other persons, having allowed them to fall.
>
> "Partial or total paralysis of the muscles of the back will produce temporary distortion, that can be at all times removed by mechanical means, as long as the vertebræ preserve their natural and regular dimensions."

This is a sufficient catalogue; and enough causes are named to produce all the varieties of curvatures.

Mr. Bampfield enters into the merits of Mr. Harrison's doctrine of dislocation of the vertebræ, as the usual cause of curvatures. It is unnecessary here to state his arguments, which are perfectly satisfactory against any such occurrence. In our day and generation we have enough of other pretended dislocations, and the reflections upon such impostures is more bitter than *sweet.*

> "Cerebral affections have been ascertained to be the origin of curvatures, more particularly of the temporary variety, and, by producing long continued muscular debility, to have led to permanent spinal distortion."

Here we have the idea started, which has given Guerin, of Paris, the hint for his theory of most or all lateral curvatures, depending on muscular contraction.

Proximate Causes.

> "The morbid alteration most frequently met with, is a reduction of the bodies of the vertebræ and intervertebral substances from a state of equal thickness to a cuneiform shape; the ordinary destruction produces either a partial or total removal of one or many of these bodies and intervertebral substances. This alter-

nation or destruction of structure is effected by 'ulcerative absorption,' or caries, of the vertebræ; by 'progressive absorption' of the vertebræ, without caries or formation of pus; by an irregular growth of bone, whether combined with progressive absorption or not; or by either an ulcerative or progressive absorption of the intervertebral cartilages. To effect permanent distortion, this alteration of structure must produce such disproportions in the mechanism of the spine, as not only occasion a deflection from the upright attitude, but are incompatible with its retaining it, and render it impossible to place or restore the spinal column, at once or at will, to its perpendicular state, or to its spinal line or natural axis, either by the powers of volition, or by any mechanical power."

"When progressive absorption of the bodies of the vertebræ and intervertebral cartilages takes place, without caries or the formation of pus, however it may be induced, the same mechanical results and structural deviations must follow, as if they had been destroyed by caries or ulcerative absorption; which is exemplified in Miss Jane Archer's case, related in this Essay. The curvatures arising from progressive absorption generally occur in children and young persons, during the growth of their bones, when the osseous structure is not very solid; the formation of the curvatures is gradual, and their extent must necessarily be proportioned to the quantity of the horizontal surfaces, or the number of the vertebræ or intervertebral cartilages absorbed. This should teach parents to observe the attitudes of their children, and endeavor to check or counteract any bad habit, as to the posture of the body, that tends to throw unequal pressure on any particular part of the spinal column."

"When an increased growth of bone takes place on one side of the spinal column, which is a flexible one, it must necessarily elevate the parts above it on the same side, and make them recline over to the opposite side, which is thinner, and that must now sustain the greater share of the weight; one consequence of which must be, that a greater degree of pressure will be made by all superincumbent weight on the thinner side, to which it is reclined, whilst it will be diminished on the side which the increased growth has elevated; and, indeed, whilst the superincumbent weight will press the surfaces of the joints more closely together on one side, it will tend to open the joints, or separate their surfaces on the other, and put the ligaments on the stretch, and (as it were) create a space for interstitial deposition.

"Now pressure is the strongest power we possess of producing local absorption, and as increased growth of bone is a cause of a permanent nature, the pressure too becomes permanent (except in particular positions of the body), and occasions absorption of that part of the bone, and of the intervertebral cartilage unduly pressed upon. Thus, increased growth on one side, and progressive absorption occasioned by pressure on the opposite side, both conspire to the same end, and both operate in destroying the natural proportions of the vertebræ, and of deflecting the erect spine from its spinal line to the form of a curve; and, in the degree that increased growth takes place on one side, and increased pressure and absorption on the other, the greater or less must be the curvature. Besides, as these causes extend their effects, the number of the vertebræ involved in the curve will be increased, until many are bent into an arc, some of which have had their dimensions increased on one side, and all of them have been diminished on the other,—which is a very important fact to be borne in mind in the treatment. During this deforming process, we may reasonably believe them uscles and ligaments offer some resistance to its progress, but effects show their resistance is overcome."

"From the facts adduced, and the illustrations offered in this chapter, I think it may be deduced, as proved;—that the erect attitude of the body depends upon the vertebræ and intervertebral cartilages being of equal thickness, and that it cannot be preserved without this just proportion. That the temporary flexions of the spine are performed or permitted by those cartilages yielding to pressure, so that their thickness becomes temporarily altered. And that all permanent curvatures of the spine are caused by, or result from, the bodies of the vertebræ and intervertebral cartilages being reduced to a cuneiform shape or entirely destroyed; in which disproportionate state of parts it would be impossible to place the spine in the perpendicular or erect attitude."

From the above lengthened extracts, it would appear that Mr. Bampfield strongly inclines to the opinion that curvatures commence in the bony structure, and that the muscles accommodate themselves to the distorted vertebral column.

Doubtless, in caries of the vertebræ, this is true; but most lateral curvatures, and round shoulders of feeble youth and old age, are produced by muscular debility.

If the weight of the head and chest, resting on the column, produced "progressive absorption" of the vertebræ, we should naturally suppose the whole column would settle down and increase the natural curves of the spine; but no such circumstances occur; and, moreover, the bones in lateral curvatures are healthy and as hard as usual; they take a wedge-like shape, from the pressure on one side being greater than on the other.

There is, undoubtedly, a great amount of truth in Guerin's doctrine of muscular contraction being a frequently productive cause of spinal curvatures. The same effect would be produced by paralysis of an antagonistic muscle on one side of the spine, the opposite remaining healthy.

Prognosis.—With caries, the prognosis is unfavorable. Where the cause is "progressive absorption," both the curvature may be remedied, and the life saved.

When aneurism is the cause, a fatal result is to be apprehended.

When paralysis of the lower extremities occurs, the cases are doubtful.

"Curvatures, attended with frequent headaches, or constant cephalæa, are dangerous; and, with hectic fever, are fatal."

When the spinal pain ceases, the functions are restored, and the patient gains flesh, the case becomes highly favorable.

Diagnosis.

"The corded tightness or sense of constriction across the epigastre is, perhaps, the only symptom peculiar to curvature of the dorsal vertebræ. Disordered respiration, with diminution of the muscular power of the back or extremities, or irregular actions or convulsions of the muscles of the latter, with a sense of weakness or weariness not easily accounted for from any other disease, should excite suspicion, and lead to an inspection of the back, as ought a constant habit of stooping forwards or leaning to one side.* In the curvatures without inflammation or caries, there is very little accompanying pain, and no pain is, in general, stated to be felt, unless the affected vertebræ are pressed upon. Curvatures with caries are preceded and accompanied with more marks of inflammation, such as pain, slight attacks of fever, and constitutional disturbance.

"In curvatures without caries, the patients generally retain a disposition to sit up and walk about; in those with caries, exercise frequently occasions pain, uneasiness, and speedy exhaustion of muscular power. In curvatures without caries, the general health is not often very much impaired, however great the curvature; at least, there are no symptoms from which much danger is apprehended: this general rule has its exceptions, as I have seen two cases of excurvation without caries, attended with dyspepsia, loss of appetite, torpid liver and bowels, and general emaciation; and one of the two was affected with paraplegia and disordered kidneys. Even in these, however, the countenance was more expressive of languor and debility than of pain.

"In curvature with caries, the general health seems to be impaired from the first accession of the inflammatory stage, whether it be simple or scrofulous inflam-

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[*Among the earliest symptoms of caries of the spine is an abdominal pain like colic, felt chiefly at night, producing morbid *insomnia*, and a desire for motion or gestation in the arms of a nurse.—Ed.]

mation; there is more pain complained of, which the patient endeavors to relieve by assuming attitudes that take off particular pressure, as by leaning backwards, or to the one side or the other; the patient gradually falls away from the first, and looks pale and languid, even when his appetite is tolerable; scrofulous swelling of glands, or affections of the joints sometimes supervene; great mental irritability ensues; the muscles become soft and flabby; and when the anterior ligaments are ulcerated through, and pus or sanies escapes from the carious vertebræ or ulcerated or gangrenous intervertebral substance, the symptoms of hectic fever with cough supervene, and the patient is generally carried off by it, and a wasting diarrhœa, assisted sometimes by the discharge of pus emanating from the diseased vertebræ. This diagnostic is not very satisfactory, but the history of the general state of health accompanying curvatures has often been the best guide in forming a diagnostic opinion, so much worse is it in curvatures with caries than without. The inflammation, ulceration, or gangrene of the intervertebral substance have appeared to me to be attended with more local pain and tenderness, and more general suffering than caries of the bony structure, and the ulceration of the anterior spinal ligament is sometimes longer deferred in the latter case, but, when induced, abscesses are the result, which generally terminate in hectic fever, emaciation and death.

"There are not any early symptoms which may be pronounced *certain* diagnostics of a predisposition to curvature, or of an incipient curvature; when, however, a patient complains of any pain in the course of the spine, attended with a sense of constriction across the epigrastre, and an occasional feeling of numbness or twitching of the upper or lower extremities, and is relieved by bending backwards, or to one side, or by lying down; suspicion should be roused and the back should be inspected. If any disease should exist, the dorsal muscles are generally wasted; if in any degree the curvature exists, the projecting spinous processes will demonstrate it; if of inflammation, pressure, and the application of the hot sponge will excite pain. In curvatures without inflammation or caries, the hot sponge as often affords ease or comfort as it produces any other sensation.

"In an incipient excurvation, the undue prominence of any of the vertebræ, or rather of their spinous processes, will be most displayed by bending the body forwards, in which position any unnatural projection becomes evident."

We have extracted very nearly the whole section on the diagnosis, because, in our opinion, it is clear and judicious.

When the health decidedly fails, and the case occurs in children less than six years of age, we think the caries will generally be developed; this, if there is no indication of rachitis, will sufficiently mark the distinction. Curvatures from other causes, in our experience, occur at a later period, and the general health does not suffer until the curvature has become established.

Treatment of Excurvation.—1st. Means of Prevention and Indications of Cure.—When blows have been received, or sprains encountered, or rheumatism of the back is present, or any cause producing inflammation or debility of the dorsal muscles, care should be taken to repose in the recumbent position, and the muscles relieved from the weight of the body, should be exercised in moderation, as the ingenuity of the practitioner may suggest.

The indications of treatment are thus given in the text:

"Some of the indications in the treatment of curvature of the spine are general, and will apply to its several varieties, whilst others will be particular, and peculiarly adapted to one variety only, The general indications applicable to all, are, to afford to the vertebral column effectual relief from pressure; to secure the bodies of the affected vertebræ from the irritation of motion in the erect attitude; to assist or enable the vertebral column to regain its true spinal line; to remove all constitutional and local symptoms of disease, and rectify all disordered functions; to promote the general health. The first, second, and last indications may be considered, at present: the others will be more appropriately entered upon in treating of the several varieties."

2*d*. *Treatment of Excurvation.*—Mr. Bampfield has covered thirty-three pages with his directions for the treatment of this variety of spinal curvature. Notwithstanding that excurvation, "per se," is so rare with us, we will endeavor to follow the text, as many of the directions will equally well apply to the treatment of the other varieties of curvatures.

The five first pages are devoted to the recommendation of a facial, horizontal position, on a feather bed, for three months, and its advantages over the inclined plane and the dorsal position. Doubtless, in excurvation, the facial presents numerous advantages over the dorsal position. But, except in cases of caries of the vertebræ, good and recent surgery would resist to the utmost any such debilitating process. Frequent recumbency, in various positions, is an essential aid in restoring an excurvated spine to its natural position; but the chief means are exercise, change of air, tonics, and indeed all the means necessary to give strength to the dorsal muscles. Even in caries of the vertebræ, practical surgeons do not insist upon permanent recumbency; in this position the general health fails; *proper support* given to the spine and relieving it from the weight of the head, will enable the patient to use *some* exercise for a limited period, and thus greatly promote the general health.

We quote the following from the text, in confirmation of what is said above:

> "After the facial horizontal position has been observed three months in conjunction with the mechanical means recommended, it very commonly occurs, that the spinal line of the lumbar and lower dorsal vertebræ becomes transferred anteriorly to the natural axis of the body, and when the patient is placed in the erect attitude, he no longer stoops forward as he did previously, but the shoulders and upper part of the column incline backwards, whilst the inward bend of the lower part or loins causes the abdomen to project forwards. When the spinal line is changed in the manner just described, the patient should lie alternately on the dorsal and facial horizontal positions, by which the column will soon regain its natural axis; for when the patient lies on his back, the spinal column gradually inclines outwards or backwards."

The spine, when treated by inaction, loses its self-supporting muscular power, and takes any position to which gravity inclines it.

Mr. Bampfield justly recommends extension when in a recumbent position, and thus describes the advantages of extension over mere pressure:

> "If pressure be made on the key-stone, or centre of an arc, it only serves to confirm its strength, unless the abutments give way; pressure, therefore, alone, on a curved spine, will not display any powerful effects, or enable the surgeon to alter its form in any considerable degree. If, however, a power be applied to the extremes of an arc, by which the cuneiform pieces of matter can be separated from each other, and extended, and a strong mechanical weight be at the same time applied to the key-stone of the arc, the cuneiform ends on the concave line of curve will separate, and the whole will bend inwards, so as to approach a straight line and fall in; so it is in part with the curved spine, if pressure on the curve be employed in combination with extension of the extreme ends, it must be reduced more or less to a straight line, on each attempt, until, by a repetition of the process, this desirable end be in great part, or wholly accomplished. The analogy would be greater, and illustration clearer, if the mind suppose the arc

> to be formed partly of elastic and partly of incompressible matter, like the constituent parts of the spine;—the principle, however, would be the same."

We are pleased to perceive that this extract is almost, in words and ideas, the antecedent of those used by the writer in an article on the same subject, published in the late New York Lancet. This extract, moreover, contains the substance of indications of cure, as promulgated by Guerin, particularly the great advantage of *bending* over mere extension and pressure.

Friction, shampooing, and pressure with the hand, are strongly recommended.

Strong pressure, by means of a broad bandage, is recommended; this is to be employed when the patient lies on the facial aspect, and it can be secured under the bedstead and thus exert a reasonable force.

The employment of *Issues* is next considered. To our mind, Mr. Bampfield takes the only tenable ground for their use; that is, when caries is ascertained to be present. We have known setons used in *lateral* curvatures even, with the greatest distress, and worse than useless effect. It is a matter of experience that suppuration established in the vicinity of a carious bone and tuberculous deposit in any situation, will often arrest the caries and prevent the softening of the tuberculous deposit.

Another question arises: shall Mr. Pott's recommendation of indiscriminate use of issues be sanctioned in all cases of caries of the vertebræ? We would make this distinction: when the caries appears to arise from a constitutional taint, then their use will be likely to be beneficial. In caries, resulting from injuries or inflammation (and such cases appear to exist, because of the previous good health of the patient and other reasons), the debilitating effects of a drain of pus should be avoided.

Again: when there is much pain, an issue will often relieve it.

The author's medical treatment is contained in the following extract, which commends itself to the approbation of the practical surgeon:

> "In the incipient stage of curvature from muscular debility, especially in children, chalybeates* have been prescribed with much good effect, with an occasional laxative of pulv. rhei, twice a week.—In this stage, local cold bathing has been useful, by applying cold water, with a sponge to the back, during winter, and by cold affusion in the summer, provided there is no diathesis to pulmonic complaints, which would interdict its use. To recover or ensure the general health, the plainest diet, at regular intervals, should be enjoined, and yet the appetite preserved by a well-managed variety of simple food. The digestive organs are frequently deranged, and dyspepsia, obstipatio, and pain in the epigastric region prevail. The digestive functions have been strengthened, as well as the whole system, by obviating costiveness with rhubarb, or a combination of p. rhei, pil. hydr. et pulv. ipecac., and the exhibition of chalybeates, or the stomach bitters, with soda or other alkalies. The peculiar pain across the epigastre sometimes requires opium for its relief; this pain and screaming in sleep, I have known removed by occasional purgatives.†
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> "When the action of the kidneys is morbid, as may be inferred from the urine being scanty and turbid, and depositing lateritious sediments, it has commonly

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* [No tonic is so useful in such cases, especially when scrofulous, as iodide of potassium or iodide of iron. I have often given, with good results, a powder composed of ten grains of phosphate of iron, and half a grain of iodide of potassium.]

† [The late eminent surgeon, Dr. Physick, almost always followed Mr. Pott in recommending daily purging in his cases of curvature with caries.]

> been restored to health by the use of magn. carb., sodæ carbon., with stomachics and gentle aperients.
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> "The peculiar pain of the epigastre, nervous irritation, and irregular spasms, perhaps from the spinal nerves being somehow disordered, by the tortuous direction the spinal marrow is obliged to assume, have generally yielded to the above remedies, surgical and medical, as have also paralysis of the lower extremities and incontinence of urine. In paraplegia, friction on the skin, flexion, and extension of the limbs, and warmth, have been used in aid of the above treatment, The different pulmonic affections must be treated by the remedies ordinarily employed in asthma, pneumonia, and cough. It may be observed, that asthma sometimes induces general dropsy in a short time, with purple-colored lips, cheeks, feet, &c.; and is frequently fatal to those whose spines and chests are much distorted. The milder attacks of asthma are sometimes greatly relieved by the vapor bath, used with the other remedies. The observance of the facial horizontal position diminishes the frequency of recurrence of asthmatic paroxysms, and combined with the use of the bandage, has the most decidedly good effect in relieving harassing dyspnœa. Scrofula must be combated by appropriate remedies adapted to the different stages and symptoms of disease. In the inflammatory stage, frequent local bleeding, blisters, and setons, have been found useful during any accession or return of pain, with very slight alteratives at night, and a gentle hydragogue aperient in the morning, continued for a long period; when abscesses, or ulcerative absorption or caries are induced, and accompanied by emaciation, the bitters, sulp. acid. and cinchona, have their advantages.* I have seen cases of curvature of the spine, in which scrofulous ulcers and abscesses of the joints of the extremities have been formed, and in which tonics and alteratives have proved highly beneficial, as well as the sulphuric acid. When the bladder loses its expulsive power the catheter must be used until it regains it."

These, and the mechanical means, the author recommends to be continued for a month in slight cases, and six months when there is evident destruction of bone; at this period, the editor judiciously suggests the use of Guerin's sectional bed, Kissam's chair, or his own equally useful spine-car. They are all applicable, each in its place, for recumbency, for a sitting posture, and for limited locomotion.

The reader will remember that anchylosis is a necessary step in the cure of carious vertebræ; and that an angular projection, varying in size according to the extent of the disease, must necessarily result.

The author recommends exercise, in a recumbent position, by using the legs, arms, &c., and bending the back.

During convalescence, he says:

> "When caries or ulcerative absorption of the bone and cartilage has been the cause of curvature, the exercises which bend the spine or throw any weight on it must be dispensed with, until the union by callus be perfect, and the bone is solid, otherwise there would be danger of fracture; for the anchylosis or bony union of the spinal column, after destruction of the vertebræ and cartilages, is not so strong as the column in its original state, being an exception to what occurs after the formation of callus in other bones, which become stronger at the point of callus. Experiments having proved that the strength of the vertebral column chiefly arises from the elasticity and strength of the intervertebral substance, which mainly unites them, and of which it is deprived by bony union filling up the whole chasm formed both by destroyed bones and cartilage."

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* [The effect of the use of a spine-car on the pain is curious.—The relief is so prompt and certain as to enable me to promise it after the suspension in the car for a very few days. It thereafter seldom returns.]

Mr. Bampfield, in recommending the use of the various muscles implicated in the disease, discusses various contrivances to effect this purpose; we cannot, of course, enter into this detail; every intelligent surgeon knows the situation and use of these muscles, and according to the age, health, strength, and pecuniary condition of the patient, he can easily adopt exercises by his own contrivance.

"It is well known, that authors and surgeons are much divided in opinion, relative to the use of mechanical apparatus in spinal distortions, some trusting to them almost entirely for a cure, whilst others, as Mr. Wilson and Mr. Ward, altogether condemn their use. It may be observed that Mr. Pott disapproves of the use of spinal instruments in all cases of curvature, and that Sir James Earle recommends them when well-adapted, because he had witnessed the good effects arising from their use, and wishes to obviate the disinclination of practitioners to their employment, derived from the opinion and writings of Mr. Pott."

If any fact has been established in modern surgery, it is the usefulness of well directed mechanical aid in the restoration of deformities of the spine and feet.

Pott's attention was chiefly directed to those cases of curvature resulting from caries; then, of course, little or nothing can be effected by machinery.

Mr. Bampfield is judicious in his recommendation of the use of mechanical apparatus. He writes thus:

"In adverting again, to the differences of opinion, which have existed respecting the utility and propriety of employing mechanical apparatus for the cure and prevention of distortion, I would first observe, that they should not be trusted to alone in any case, as is too much the practice, where the patients apply to machinists who are not surgeons, or where the surgeons consulted have not turned their attention to the subject and refer the patients to machinists; but the mechanical apparatus of some form or other, can be employed, with advantage, in some stages of the complaint, provided their use only constitutes a part of the treatment, and is combined with such other means, as have been described and recommended in the different stages of the disease.

"I so far coincide with those who oppose the use of instruments, in believing them to be unnecessary and useless, in those stages of spinal disease in which I have stated the use of the horizontal posture to be indispensably requisite; indeed, when circumstances or symptoms render that posture advisable, the use of instruments is improper, and if employed as a substitute for it, the practice would be highly censurable, for no instrument or combination of instruments could so effectually relieve the spine from superincumbent weight and pressure, as proper horizontal position; as well might the surgeon, in a case of scrofulous inflammation of the knee-joint, put on an instrument to restrain its motion, and desire the patient to walk about on it! The use of instruments, for instance of the collar, will not relieve the disordered respiration, whether dyspnœa or asthma; their use will not prevent the accession of fits or chorea; neither will they conduce to the cure of paraplegia, nor remove the sense of corded tightness across the epigastre, so effectually, as proper recumbent posture, and, indeed, they frequently fail in those objects entirely, and the patient gets worse under the use of the collar.

"Instruments for stretching and supporting the vertebral column, should not be employed during scrofulous or simple inflammation, or caries, or vertebral destruction by absorption, neither should they be resorted to during the regeneration of bone. During inflammation, the stretching of the ligaments would irritate and probably increase it, and the support from the collar would not be effectual in taking off all superincumbent weight and pressure. During, or after extensive destruction from ulcerative or progressive absorption, the remains of the vertebræ might be fractured by forcible stretching even by the windlass, and much more likely by the mode of stretching the spine by suspension by the head.

"During infancy, I have not employed powerful extension in the cure of excurvations, or any other form of curvature, and have consequently avoided all the mechanical apparatus for stretching the spine, and have never used the collar for its support, as I was apprehensive, at that tender age, of doing injury by straining muscles or dislocating joints; nor is such a practice necessary, as the numerous excurvations at that age are cured with greater facility than at any other. Indeed, the use of the pad and bandage well applied, in union sometimes with the shield, assisted by tonic medicines, the cold bath, and attention to the digestive functions and excretions, generally effect a perfect cure in twelve months, without the aid of instruments."

We shall speak more in detail of mechanical means when on the treatment of lateral curvatures.

Incurvation of the Spine.—History and Symptoms.

"INCURVATIONS of the Spine are less frequent than the other species, and do not describe such large curves as they exhibit.

"Incurvations are rarely attended with the serious consequences that ensue from the other curvatures, and will only require a brief notice. It generally, perhaps always, takes place in the cervical, lumbar, or lower dorsal vertebra, from disease. By some rare accident, a power may be applied to some dorsal vertebra, which shall force them from their natural axis, into a state of incurvation, as is said to have happened to Colonel Sibthorpe.—*Medical and Physical Journal, for March*, 1823."

We would add, that incurvation is most generally a congenital deformity, and is not productive of serious consequences, unless the incurvation be extreme; when, if the subject be a female, parturition may be interfered with, from the lumbar vertebræ pressing into and partially filling up the superior strait of the pelvis.

Treatment.

"In all cases of incurvation, the dorsal horizontal position is the most proper; if the incurvation be of the cervical vertebræ, the chin should be drawn in towards the neck, which tends to throw the cervical vertebræ backwards; if of the loins, the flexion of the thighs tends to remove it, but this flexion should not be constantly employed, as it would dispose the flexor muscles of the thigh to establish a permanent contraction."

This, with the horizontal position, constitutes the principles of treatment peculiar to incurvation. All the tonic practice may be resorted to with advantage, especially sea-bathing and change of air.

Lateral Curvature.—This is an important chapter, and in America, in our experience, is of much more frequent occurrence than excurvation.

"This disease almost universally occurs *during the growth of the body*, and is almost as common as excurvation. It rarely occurs in infancy, or after the adult age.

"It has been remarked by Mr. Ward, p. 25, that the curvature takes place more frequently towards the right side than the left: as my experience is the reverse of this statement, it is probable both sides are equally liable to it, that is, *to the first or dorsal curvature*;*—for lateral curvatures are single, double, or triple; and in the latter cases are ambilateral.

"The first deviations of the spine from its natural axis to an inclination to either side, are seldom observed, and the first symptom that frequently awakens the attention, and alarms the apprehension of the parents of children and young persons, is the elevation of one of the shoulders; or the depression of the opposite one may first strike them. When, however, it is noticed, from three to five of the spinous processes may be seen to form a gradual and slight curve to one side, more especially when the patient is standing or sitting upright: this curve almost always begins in the middle of the vertebral column, from the cause explained and illustrated at p. 25. In the incipient stage, when the curve embraces from five to seven vertebræ, it bears a resemblance to the Italic letter *f*, and in this state it can be frequently reduced to the spinal line by recumbent posture and extension.* At this period, symptoms of nervous irritation and derangement, or of diminished nervous energy, are far from being common accompaniments, nor indeed do they constantly occur at any stage of the progress of the distortion ; I have, however, seen them early induced with much severity, producing irregular convulsive actions of the muscles of the upper and lower extremities ; of the muscles of the eyes ; and, in some rare instances, general convulsions have supervened, especially towards night. Muscular debility and a bad state of health have generally ensued from, or accompanied symptoms of nervous disorder.

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* [Mr. Ward states that, of 240 cases of lateral curvature, 230 were on the right side. I have rarely seen left lateral curvature; so that we must suppose Mr. Bampfield's experience to have been, on this head, singular.—ED.]

"When the predisposition to lateral curvature is once established, and has produced its elementary effects, those effects lay the basis, or become additional causes of future increase, whose power is independent of the pristine sources or remote causes of malady, and is augmented in the ratio of its progress by the mechanical principle mentioned at p. 56. As soon as the lateral curvature is formed in the dorsal portion of the spine, the ordinary centre of gravity of the body is lost, and, in order to maintain its equilibrium, the patient inclines the cervical and lumbar portions of the spine in the reverse direction, and in the course of time, if it be supposed the curve of the dorsal portion be on the left side, the cervical and lumbar portions will form curves, having their convexity to the right, and thus, as the process of distortion advances, the whole spine will be thrown into unnatural shapes and attitudes of deformity, by which it deviates entirely from the spinal line, and is gradually changed from the form of the Italic *f* (s), to a shape more like the Greek ς (sigma), with three curves in the last stage, when there is complete formation of ambilateral curvature. This advanced stage of lost symmetry has been more commonly compared to the figure of the Roman S, but it bears no resemblance to it, nor would it be possible to make the spine assume such a shape by any mechanical force ; for if bent into that form, the head would necessarily be inclined over, and hanging down on the side of the body.

"As the distortion of the spine has advanced in the directions above-mentioned, the scapula and clavicle on one side have the appearance of being depressed lower than the other, and of being smaller in size, and they are in fact distant one or two inches more from the head than those on the other side, whilst the opposite shoulder is more prominent, and appears elevated."

"Lateral curvatures are formed by slow degrees ; but here, as in excurvation, if the patient be assailed by an acute disease, such as fever, or any of the exanthemata, which induces great debility, the progress of the disorder proceeds very rapidly, until the strength is regained."

"Instances of carious vertebræ in this variety of curvature are very rare, and where they have occurred, the caries has been occasioned by scrofulous action, which has extended to the intervertebral cartilages and ligaments, and excited an ulcerative action in them, from the joint effects of which the vertebral joints have been destroyed, and the necessity of a curve by anchylosis induced, as in excurvation. In the generality of cases, however, the integrity of the joints is preserved, and their articulations are so distinctly maintained, as to allow of considerable motion in all directions, with the body bent to one side, or curved in different directions to both. The bodies of the vertebræ may become very thin, and shaped like a sharp wedge on the concave side, whilst they retain their proper breadth on the other; but, however great the curvatures, the bodies of the vertebræ and intervertebral substance are not entirely destroyed, as occurs both from ulcerative and progressive absorption in excurvation. This probably depends upon some law peculiar to rickets.

"Lateral curvatures of the cervical vertebræ only occasionally occur; in Mr.

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* [This ʅ is the usual form, to the right above, and to the left below.—Ed.]

Brook's Museum, there is a rare specimen of an irregular growth of bone producing lateral curvature of the upper cervical vertebræ in an adult,* without evincing any appearance of caries or of rickets. The first, second, and third cervical vertebræ are united to each other and to the occipital bone, by anchylosis; and a bony septum of considerable size is thrown across the commencement of the spinal canal. The line of curvature on the right side measures one inch three lines, and on the left side, two inches four lines; so that there is a difference of one inch and one line between the convex and concave lines of curve, and consequently of the thickness of the vertebræ.

"This cure by anchylosis is one exception to the general rule. Specimens in the London museums, however, exhibit anchylosis of the transverse and articulatory processes, as well as of the ribs, induced in lateral curvature, yet in such instances even, there is scarcely a mark of anchylosis of the bodies of the vertebræ. The distorted disposition and altered proportions of the vertebræ and ribs, necessarily produce changes in the muscles attached to them. For the approximation or contact of the ribs on the concave side of the curve, the intercostal muscles are shortened and almost obliterated in some instances, which is the case of the intertransversalis muscles. These muscles are necessarily obliterated, where anchylosis of the costæ and transverse processes has been formed. From the approximation of the edges of the false ribs, to the brim of the pelvis on the side of the body, corresponding with the concave side of the dorsal curve, the abdominal muscles on that side are contracted or shortened in dimensions, whilst the descent of the scapula and clavicle on this side, occasions an elongation of the muscles connected by their attachments to, and situated between the head and the cervical vertebræ, and the clavicle, scapula and ribs. The condition of the dorsal muscles is much altered, as, on the convex sides of the curvatures, they are stretched, and in some degree lengthened and are larger, and on the concave side, they are shortened or contracted, and are smaller, and in the proportion of their permanently contracted or shortened state, is the original contractile power, exerted by those muscles, diminished; whilst, on the opposite or convex side, the contractile power remains in full force, yet the rigidity of the muscles in a state of permanent contraction and shortness on the concavity of the curvature, offers great resistance to the reduction of the vertebral column to its spinal line, although the muscles situated on the concave side possess less density, and appear somewhat wasted.

"Some of the spinal muscles present particular and unnatural appearances;—for instance, on the convex side of the dorsal curve, particularly if the vertebral ends of the ribs project or grow backwards, the longissimus dorsi and sacro-lumbalis appear so full and prominent as to protrude backwards like a tumor,† and, from the displacement of the scapula, it sometimes happens that the edge of the latissimus dorsi does not pass over the lower angle of the scapula, but lies below it. From the altered position of the scapulæ, some of the muscles inserted into them must be lengthened and others shortened, and the action of others must be deranged by the altered direction their fibres are thrown into. In lateral curvature, as in excurvation, the lost power of the shortened muscles has been mistaken and described by authors, as a state of paralysis.—See p. 21, *et seq.*"

"In the generality of cases of lateral curvature, there is not any pain complained of in the course of the curves, nor is any felt or excited by pressure; nor is the power of the muscles so much weakened in general, as in excurvation. Yet, when scrofulous irritation and inflammation, with the results described in the last paragraph, are experienced by the bones and medulla spinalis, pain is felt in the course of the curvature; spasms of the extremities and diaphragm take place; the muscles of the extremities become disobedient to the will, and the patient cannot walk steady, or the muscles may become paralytic;‡ obstinate constipation ensues; incontinence of urine and fæces casually happens; dyspnœa with a sense of suffocation occurs; the irritation of the medulla spinalis is communicated to the nerves united to and proceeding from it, and various nervous symptoms and feelings are induced; in young females, hysteria sometimes takes place, and the menstruation is painful or suppressed;—this latter event is, however, more common in excurvations, as should have been observed. It may be stated that Mr. Lloyd relates a case of lateral curvature attended with lumbar abscess.—Pp. 258, *on Scrofula.* This is an uncommon occurrence."

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* *i. e.* The skeleton is that of an adult.

† Mr Shaw observes, that he has known this appearance mistaken for large tumor.—*On Distortions*, p. 113.

‡ It has been observed by many authors, that the condition of the muscles in the paralysis from diseased spine, differs from that in ordinary palsy, and that the muscles are not so soft, but the joints are more rigid.

These are extended extracts, but the importance of the subject justifies us. Those of our readers, who have no standard work on curvatures of the spine, will be benefited, as these extracts contain descriptions which are as true to-day as at the time they were written.

Remote Causes.

"The remote causes of lateral curvature are rachitis, or disproportion of growth of the sides of the vertebræ; unequal length of the lower extremities; undue pressure on one side of the vertebral column from carrying heavy weights on one arm, by which the spine is bent to one side; an inclined position of the body to one side long continued; muscular debility; rheumatism of the intercostal and dorsal muscles; abscess on the side of the neck or trunk; scrofula; tumors. Is unequal action of the dorsal muscles a cause?"

"I have seen instances of lateral curvature produced by a habit of long continued inclination of the body to one side, after the adult age, in insane persons; in the young and growing, this is a more common event. Young artists of both sexes are liable to lateral curvature from this cause, from adopting a habit of sitting before their paintings and drawings with an inclination of the body to the left side, with the left arm resting on the elbow or hanging by the side, sometimes with the palette in the left hand, whilst the right arm and shoulder are raised, for the purpose of directing the pencil, and the head is directed to the left shoulder, and in this position the spine is kept in a state of lateral curvature, for a long continuance of time.

"Some eminent artists in London are distorted from this cause. Young ladies and boys who sleep two in a bed are apt to lie always on the same side of the body and bed, and become liable to lateral curvature from this cause, as are all young persons who sleep constantly on one side, with the side of the head and shoulder resting on pillows, as in that position the spinal column is bent into a lateral curve. Young persons who always sit on the same side of a fire or window, are also liable, by acquiring a habit of leaning to one side."

"Of all the causes (supposed or real) of lateral curvature, there is not one, the belief of which has obtained so generally and popularly among the profession, as the unequal action of the dorsal muscles; and yet, I have not met with one, whose explanation of the modus operandi of this cause, carried conviction, or whose proofs could be considered conclusive. To produce unequal action of similar muscles, there must previously exist unequal power, or one set of muscles must act spasmodically. I have never seen spasms of the dorsal muscles become permanent or followed by permanent lateral curvature. How are we to ascertain that an unequal power exists? This cannot be demonstrated.

"It is, therefore, assumed, by the abettors of this doctrine, that it is so; and they infer, that the set of dorsal muscles which are deficient in power, are overcome, and suffer the spine to bend to the side on which the stronger set of musoles are situated, and this side is said to be the concave; now it so happens, that in cases where proofs of diminished power of the dorsal muscles on one side exist, the very reverse happens; for instance, if a person receive a contusion or wound of the dorsal muscles, which necessarily weakens them, he invariably inclines to that side, and is not drawn to the opposite side, where the power of the dorsal muscles remains entire. Besides, it is a fact that dissection has disclosed, and which an accurate observation of the living will evince, that the muscles on the concave side of a lateral curvature, whose power is assumed to be the greatest, are both smaller and shorter than those on the convex side, and if the power of muscles be in ratio of their density and length combined (see pp. 21 & 22) the above inference must be incorrect, and the explanation deemed unsatisfactory. Again, if the inference were true, and the muscles on the concave side of the curve occasioned that curve, by their greater power of contraction, a very singular pathological phenomenon would be presented in the double or triple lateral curvatures; for instance, the dorsal muscles on one side of the spine would, by their greater power, produce a curve in the central parts of the spine, and on the other side, by the same cause, a curve above, and a curve below it, in the cervical and lumbar portions in an opposite direction; so that we should have both sets of muscles contracting, in different portions of their length, both stronger and weaker at the same time, or one portion of a muscle must be in forcible contraction, whilst the other is relaxed, which is neither consistent with reason nor analogy.

"I have observed the condition and action of the dorsal muscles in the earliest stages of lateral curvature, attended with muscular debility; and the following were the phenomena they represented. After the patient has kept the spine erect, until the muscles are fatigued, the spinal column suddenly sinks down, and bends to one side, and the patient inclines to the other, to maintain the balance. In this state, they remain quiescent.

"Some fashionable follies of modern education are justly accused of producing this species of curvature, especially in young females, first, by establishing habits that deprive the muscles of the back of their natural exercise and actions, and thus prevent the attainment of their natural strength, or, by their inaction, induce debility; and, secondly, whilst in this state of debility, by endeavoring to subject the spinal muscles to more exertion than they are capable of using, in the injunctions they receive, to keep the body constantly erect, in the standing and sitting attitudes. Thus the spinal muscles of young females are doomed to inaction, by the trunks of their bodies being imprisoned in stiff stays, or their movements abridged and confined by the use of collars, braces, backboards, or by being stretched motionless on reclining boards, or school-room floors; — or they are subjected to long continued exertion, and the use of one posture, which all our muscles abhor, and soon become weary of, by being placed in education chairs or stools, the long forms of school-rooms, or on the round stool, to practise for hours on the piano-forte or harp, with strict injunctions to keep the body quite upright, and menaces of punishment if they stoop or bend in the least; but the muscles must sometimes obey divine, instead of human laws, and when fatigued and weary in the erect posture, must gradually follow the Creator's law, and seek repose, by allowing the body to sink into an inclination to one side or the other, and, by laying the basis of lateral curvature, produce the reverse of what human wisdom intended. Thus, from too much anxiety about the elegant and proper development of the female figure, tyrant fashion, under the apparent sanction of custom, and the specious guise of education, has usurped the prerogatives of nature, has abolished the freedom of muscular action, and has presumptuously substituted the rules of art to direct the growth, and mould the form of the human figure, and direct its muscular powers! — Surely the Creator never intended these restraints; nature disdains them; and *he* who gave us powers to maintain the spine erect, also ordained its form to be bent, and its movements to be unfettered. Before man became subject to the influence of refined civilisation, he enjoyed the privilege of free exercise of all his muscles, in the most untutored and unlimited manner, practised what attitudes he pleased, indulged in such sports and pastimes as he listed, and when weary, assumed the recumbent posture he chose, without being shackled by the dictates of art; spinal deformity was then unknown to those who lived in a free state of nature, often called savage or barbarous. The growth of the body, the proportions of form, the adjustment of the figure, the turn and directions of the bones, were left to the unerring hand of nature, and freedom of muscular movements. But, by the force of cruel fashion, nature is almost forsaken, and art is so preposterous and assuming as to offer dictates, and prescribe directions to form the body agreeably to its natural configuration; and parents, and proprietors of female seminaries or schools, are so silly and unreasonable as to submit to their guidance. Nay, this submission to the suggestion and dictates of art has even been made in one department of our government, and in a great national institution for the rearing of orphan children of soldiers, there is established the appointment of an exercise and figure master, with the pay of a captain in the army, who is to control and give a proper direction to the growth of the body, 'to teach the young idea how *to shoot,*' and elicit and confer tone on all their powers, by artificial exercises of particular muscles, in a numerous train of movements, and list of attitudes.* Against these artificial habits and customs, wisdom has launched its mandates, genius has levelled its enlightening arguments, experience has pronounced its judgment, reason has fulminated its reproaches, wit has pointed its keen shafts of ridicule, and authority has proclaimed its interdictions; yet the folly of fashion increases, and its prevalence extends! In passing through the school-rooms of the seminaries for young ladies, what can be more appalling and preposterous, than to see the motionless figures of a long row of young ladies lying on inclined or horizontal planes of deal boards, 'like *patients* on a monument smiling at the white-washed ceilings,' or like the mute statues on tomb-stones of those interred beneath, and from which we should hardly distinguish them, were it not for the occasional movements of the muscles of their (should be) brilliant eyes, or laughter-loving muscles of the face, whose situation defies control and eludes confinement. The conduct of boys' modern schools is, also, exposed to serious objections, in common with the girls' schools. Boys and girls are too much shut up in small play-grounds, like prison yards, instead of being allowed to range the valley free, or girls have small gardens to walk in enclosed by high walls, like those of the asylums for the insane. What can be more contrary to nature's freedom of movement, than marching schools of boys and girls, in rank and file, like the boys at the military asylum, instead of allowing them to move at ease, in any place they prefer, or are prompted to?"

It will be seen by these pages, quoted from the text, that even Mr. Bampfield has a partisan view of the causes of the lateral curvature. To us it appears somewhat remarkable, that gentlemen writing on scientific subjects should deem it necessary to enter the lists as partisans.

From the great variety of causes stated above, and cases adduced in illustration of them, it appears clear to our mind, that spinal curvatures, without caries, may and are produced by very many different causes.

Bad positions, unequal muscular action, rapid growth of body, diminished supply of bony material, inflammatory action of the dorsal muscles, and more than all, unequal action of the muscles, moving and supporting the spine, induced by nervous irritation, which comes from bad school management and over civilisation,—all are causes to be recognized by the eclectic and practical surgeon.

It would be easy to write a volume on the abuse of the nervous system, and its effects in producing paralysis of muscles, as well as diminished and increased action.

Guerin is right in supposing the cause of lateral curvature to arise from unequal muscular action, caused by diseases of the brain and nervous system; but he is undoubtedly wrong in allowing no other primary causes.

We have not unfrequently treated placid country girls for lateral curvature, whose nervous systems were as little excited as their quiet lives, amid natural scenes, were inoffensive and unsophisticated.

Immediate Causes.

"The immediate causes of lateral curvature are the same as of permanent spinal distortion in general, and will be found in the morbid alteration of structure of the sides of the spinal column, producing such a disproportion between them, as renders it impossible to restore it at once to the perpendicular figure, and retain it in its true spinal line. This alteration of structure is rarely effected by scrofulous caries, or ulcerative absorption, on one side of the bodies of the vertebræ, and when it is produced, the curvature is generally single, and the scrofulous caries only affects one or two vertebræ.

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* This practice is said to be introducing into our great schools.

"When scrofulous inflammation and ulceration attack the horizontal surfaces of the bodies of the vertebræ, or intervertebral cartilage, there does not appear any exclusive reason, why they should not particularly affect one side only of the horizontal surfaces of the vertebræ, and produce a lateral curve; but still the fact is otherwise, for it generally attacks the whole horizontal surfaces, and produces excurvation, to which some degree of lateral curvature is sometimes superadded, by one side of the bones being subsequently absorbed, rather more than the other parts of the horizontal surfaces.

"The ordinary lateral curvature, to which that just mentioned is a rare exception, effects many vertebræ, and is produced by progressive absorption, or by an undue growth of bone combined with it. I shall now endeavor to establish the connexion between cause and effect, and prove the adequateness of one to produce the other, but shall first remind the reader that topical pressure is the most powerful agent for producing local absorption."

"Patients affected with lateral curvature seldom lose their lives, even when the disease has been left to nature, unless scrofulously affected. It, however, permanently occasions dyspnœa and asthma, and the health of the subjects of this curvature is generally delicate, and easily disordered, but there are many exceptions to this observation, and, aided by a guarded regimen and regular habits, a good share of health may be enjoyed by those doomed to endure for ever this deranged structure."

The author here continues his opinion of "progressive absorption" of the vertebræ as the immediate cause of curvature.

We have examined numerous specimens of spines, the result of lateral curvatures, and our observations on many of them lead us to think that the cuneiform shape of the individual vertebræ is not produced by absorption alone, but by pressure, rendering the thin side more dense, and the opposite and thick side, being relieved from pressure, more porous. We think, if a single vertebra of this kind should be divided antero-posteriorly, the weight of each half would be nearly equal; the fluid and lighter parts being absorbed, whilst the bony constituents on the one side are condensed and on the other expanded.

Treatment.—The author considers this under two heads. 1st. From unequal length of limbs. When one of the legs is shorter than the other, it becomes evident that the treatment must commence with remedying the defects of inequality. Whether this shortness arises from want of development, deficiency of the plantar-arch, or bow-leg, the leg must be made to correspond in length with the other; afterwards, if the curvature persists, the means to be now pointed out, must be adopted.

The author suggests, that if the disease existing in the shortened leg is of such a nature that mechanical means would prove injurious, that the patient should take the horizontal position for a time. The exercises, recommended under the head of excurvation, may be used with advantage.

Issues and setons, of course, do no good in such cases.

When curvature proceeds from mal-position, this must be corrected; artists must use the other arm; children, sleeping on one side only, must change their habits; if carrying weights on one side be the cause, the burthen must be shifted.

A general tonic course is also recommended.

"It has appeared to me desirable, that the exercises in general directed for lateral curvature, should call into action, *in an equal degree*, the spinal muscles on each side of the spine, the muscles on both sides of the trunk, and the muscles on both arms, as such modifications of muscular action have a tendency to reduce the spine to its spinal line. Thus, flexion and extension of the spine exercise equally the spinal muscles. The muscles of the trunk and arms may be exercised in an equal ratio, in the sitting or standing postures, by placing the body between, and turning two wheels, fastened to a frame, or door-posts, with handles that have levers of the length of the semi-diameter of their circumference. The wheels may be of various sizes, and fixed higher or lower on the frame, as in proportion to their weight, will the muscles be exerted; and the levers may be of various lengths, as in the proportion of their length, will the body be obliged to perform greater or less flexion and extension in their rotation. If the latter should be small, let the lever be short; if flexion and extension of the spine should be considered, let the levers be long. This mode of exercise, either in the sitting or standing position, is applicable to lateral curvature from all the causes already enumerated, and is, in general, very useful, where exercise is proper. Light dumb bells may be used.

"Weak young ladies and boys, who are made to sit for long periods on stools or benches without any support to their backs, as on school benches or in learning music lessons, and who are obliged to assume the attitude of easy grace of some ancient statues, as of the Venus de Medicis or Antinous, but which is one of incipient lateral distortion, should be accommodated with a chair with a properly formed back, and the strength of their muscles should be increased by the institution of exercises recommended in the sitting and standing postures, whilst their general health and strength should be promoted by tonics, regimen, and good air."

Mr. Bampfield inclines very strongly to treat these cases in a recumbent position—encouraging exercise in that situation.

"The spine should be kept as long and as often extended, by mechanical contrivances affixed to the cross-pieces of the couch-frame, or by persons pulling at the extremities, as the patient can conveniently endure. Some degree of permanent extension or for a long period, can be effected by the patient applying Dr. Darwin's steel bow to the head, whilst he lies on an inclined plane, with or without weights appended to his feet. P. 92. The moveable inclined plane of Mr. Shaw is equally applicable, and its use is equally advantageous. P. 87. Temporary extension may be employed with the windlass, as described at p. 92.

"During extension, the surgeon, or some one under his direction, should, for half an hour or one hour or more a day, employ pressure with his hands on the curved portions of the spine and on the projections of the ribs; with his thumbs placed against the sides of the spinous processes, on the convex side of the curve, he can press the vertebræ towards the spinal line, and, by laying the palms of his hands on the backward costal projections, he can press them forwards, and, by giving a lateral direction to the pressure, cause the vertebral extremities of the ribs to aid in directing the distorted vertebræ to their natural axis. Where there are two or three curvatures, a person may act on each side."

By this, it will be seen, he does not lay much stress upon extension and pressure.

"Dyspnœa is a troublesome symptom in the advanced stages of lateral or ambilateral curvatures, and continues during life, if the curves be not removed; the most effectual relief I have found for it, is lying in the oblique position on the projection I have described, which tends to enlarge the capacity of the thorax and the power of expansion of the lungs, and to obviate the compression the lungs are subject to from the backward projection of the ribs and their approximation to the vertebræ.

> "A gentleman of great acuteness and intelligence and much mental energy, who consulted me on account of lateral curvature, assures me that he invariably finds relief from dyspnœa by lying down on the costal projection which I recommended to him, and he is of the opinion, from personal experience, I cannot attach too much importance to the inculcation of the observance of the oblique lateral position, in this species of distortion.
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> "The particular recumbent posture recommended, is also the best remedy for the cure of nervous symptoms, resembling chorea sancti viti, irregular actions of the muscles, fits, pain of the head, and spasmodic affections of muscles, as of the extremities, eyes, &c., with which tonics, chalybeates, and aperients may be combined."

The following lines, in our opinion, contain judicious advice:

> "If pain has arisen in any portion of the spine, local bleeding and blisters have been used, but they are not often indicated. In the rickety variety, issues and setons are not necessary."

The only cases of lateral curvature, requiring issues, are thus described:

> "It has been stated that scrofulous inflammation, ulceration, and caries have been known to destroy the lateral portions of the vertebræ and intervertebral substance, and the spinal column being deprived of its natural support on either side, must incline on that side, so as to form a lateral curvature. Although this case is of very rare occurrence, yet it is of great importance, because it is the variety that has a direct tendency to destroy life. In this case, the pain is felt in some portion of the curvature, both on mechanical pressure on the part, and on the patient using exercise in the erect posture, which induces him to assume the recumbent position; the patient sometimes experiences acute lancinating pains of the back, and screams in his sleep; in lateral curvature, from rickets, &c., the patient very seldom complains of pain, or seeks the recumbent posture, nor is it excited by the mechanical means of cure; in the scrofulous variety, the general health usually suffers from the first, or if the appetite and digestive functions be not remarkably disordered, yet the nutritive function is impaired, and the patient becomes emaciated, pale, irritable, and weak.
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> "After the ulcerative process is established, and the bone becomes carious, and the intervertebral substance and ligaments partake of the disease, and pus collects behind the mediastinum or peritoneum, and perhaps makes its way to the surface of the body; the pains increase, hectic fever is induced, the patient cannot bear an erect attitude, emaciation advances, and the patient dies. In such cases, local counter-irritation, and remedies for subduing local inflammation, should be employed; issues, setons, leeches, cupping, blisters, are all useful. I have found gentle alteratives and a daily hydragogue aperient the most useful medicines in the inflammatory stage. A diet of easy digestion should be prescribed. After the suppuration, that system of treatment that is best calculated to support the patient should be adopted.
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> "A recumbent posture should be enjoined in the inflammatory stages; in the state of caries instinct prompts it, and extension and pressure should be so gentle as not to excite pain."

Mr. Bampfield states his views of the use of mechanical contrivances as follows, in which he takes an eclectic position; had he written at this date, he probably would have inclined more in their favor, from the great improvements made in their construction and capacity:

> "In the very early stages of this disease, when the curvature is directly lateral, and there is no pain or tortuosity of the spine, a cure may be attempted, without having recourse to the recumbent posture, by proper exercises of the dorsal muscles and those of the trunk; by wearing the spine machine or collar, with lateral

and axillary supports, and the rods for supporting the head, as often as the patient uses the erect attitude, and by the remedies employed for the cure of rachitis. This instrument should be worn in all cases, whenever the patient is obliged to assume the upright posture, and if a cure cannot be effected, this instrument, varied for particular purposes, must be worn. If instruments be injurious at all, they must be so in curvatures attended with rachitis, when the bones are soft and yielding. I therefore revert to the subject of the use of instruments. As all the spine instruments embrace and rest upon the pelvis, as their base of support, they have been objected to by many eminent surgeons, whilst their employment has been defended by others, and great authorities may be quoted on both sides of the question.* The bad effects are attributed to a weight or burthen being thrown on parts never intended or calculated to bear them, by which the pelvis is irreparably distorted, and females suffer, during parturition, from pelvic deformity, preventing or retarding the passage of the fœtus.

"Their good effects are derived from taking off weight from parts predisposed to be disorganized by undue pressure, and keeping the spine erect. The latter are positively good; the former appear to be evils too much overrated, and the effect not *distinctly* proved to arise from the use of instruments, in any case; they are inferred from the sometimes erroneous maxim of *post hoc, ergo propter hoc*, a maxim rather incautiously admitted as true in the instance under consideration. During the existence of a rickety diathesis, it seems to be a correct fact to state, that there is no law belonging to rachitis which limits its influence to any particular bones; all the bones are subject to its influence, but different bones are affected in different persons; in many, the extremities are bowed and deformed; in others, the spine is curved; and, in a few, the bones of the pelvis are distorted; but it seldom happens that the pelvis is distorted when the spine is curved, and not often that the spine is curved when the extremities are bowed.

"It will be proper to consider if the bones most implicated in deformity of the pelvis, whose distortion prevents or impedes parturition, are those the most subject to pressure from spinal instruments. The superior aperture of the pelvis is the most common seat of distortion, and this more particularly arises from the 5th lumbar vertebræ and the upper part of the sacrum projecting inwards. The os coccygis may be pressed inwards; the sacrum may be too straight; the ischia may be distorted by an unnatural bend of their spinous processes; or the tuberosities of the ischia may be bent inwards or forwards, or the ossa pubis may be curved so as to diminish the superior aperture;—and, by all those deviations of structure, the passage of the fœtus through the pelvic apertures is obstructed.

"Does the spine instrument press upon any of the particular parts enumerated? it certainly does not,—as its particular pressure is made upon the spine of the ilium, and it does not touch the sacrum, os coccygis, or tuberosities of the ischia; and the pubis is only crossed by the strap, or is not touched at all. Again, the part of the instrument embracing the pelvis is made to fit its natural shape, and must rather tend to preserve its form than occasion its distortion; besides, as the greatest pressure is on the sides of the pelvis, this would tend to widen the space between the ossa pubis and sacrum, and preserve the pelvis from deformity, rather than to occasion that obstruction of it which is usual in distortion of the pelvis. Still, there is a way by which spine instruments may do injury; for as those instruments are generally worn during the growth of the body, if an instrument adapted to the size of the pelvis at one age be continued in use until the patient be older, and the dimensions of the pelvis larger, it may repress the growth of the ilium, and alter its conformation."

The spine-chair of the writer of this notice, as well as Dr. Mitchell's spine-car, are so constructed that no undue pressure is given to the bones of the pelvis. Gravity is the counteracting force to extension and pressure.

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* [No such objection applies to the spine-car of the editor, and the spine-chairs of Darwin, Shaw, and Kissam, as they do not throw the weight on the pelvis.—Ed.]

The health invariably improves under the use of the spine-chair, as is manifestly shown by the increase of development and weight.

In answer to objections against the recumbent position, the following is urged:

> "It has of late been urged as an objection to the long continuance of the recumbent posture, that it produces a soft state of the bones; I must not doubt such statements, but I cannot help observing, that I have had many opportunities of examining persons who have died after having been many years bed-ridden, and I have not witnessed in them a soft state of the bones, nor such as is observed in rachitis. Were this a general fact, in no species of curvature would recumbent posture be so properly objectionable, as in the lateral one; nor could the rickety diathesis be expected to be cured during its use, but every day's experience refutes such a conclusion.
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> "'It may be stated as a law of animal economy,' says Mr. Shaw, 'that *the active exercise of an organ is necessary not only to its perfection, but even to its preservation.** This is often exemplified by the state of the parts which are kept in due activity; for, if they are not exercised, they degenerate, so as even to lose their peculiar characters, and gradually to become similar in structure to the common cellular membrane.' From this it is inferred that the cellular texture is not only the original matter in which bone, muscle, and nerve are deposited, but that from which other parts are formed. If it had been assumed that the exercise of an organ is necessary to its functional perfection, it would have met with a general concurrence; but when it is added that it is necessary to its preservation, that is stated to be a law of the animal economy, which will not be readily assented to. The experienced physiologist will have observed many instances of persons, who, from obesity and corpulence, have, for years, been deprived of the due activity and exercise of their muscles, especially of the lower extremities, in whom the muscles have not wasted, the bones have not been softened, and in whom, the bursæ, capsules, and ligaments, do not form one distinct mass of cellular substance. He will have seen many, who, from advanced age or infirmities, have been bed-ridden for ten or twelve years or more, and have been necessarily inactive, and yet the muscles, bones, joints, and their constituent parts, have been preserved, and show their external character and uses very distinctly. In the case of Ann Selby (*See Chap. cn Spina Bifida*) all these parts were organized, preserved, and distinctly cognizable, and might be stated to be perfect, except the spine, although they had never been kept 'in due activity,' and hardly used at all from her birth. If 'the active exercise of organs were actually necessary to their preservation,' wo be to old maids and bachelors, nuns and friars, and the barren, for their genitals must be converted to fat. Wo to the man affected with inactive obesity, for he must become a mass of 'common cellular membrane.'"

> "In all cases of softened bone, mentioned by Mr. Shaw in his valuable work, at p. 6 *et seq.*, the bone had been either wounded, fractured, or dislocated, and had, consequently, been subject to diseased action, and the osseous condition had not been changed by mere disuse, whilst the body was in health. Does not a solid bony union of fractures take place during the motionless quiescence and perfect inactivity of the limb? Teeth neither decay nor waste, nor become soft from disuse, as where those opposed to them in the opposite jaw are drawn; but they enlarge and retain their hardness."

> "Exercise of parts during disease does not prevent muscles from wasting; for patients with spinal curvatures have been subject to a wasting and paralysis of muscles, who have persevered in exercise as long as they were able, as was the case of H. Peckham, Miss Ward, &c. And, after constitutional disease has

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* See p. 1 and 46, on "Distortions, by John Shaw."

been cured, the patients' muscles do recover their power of exercise, their plumpness and activity, whilst they have continued the horizontal posture.

"As far as physiologists trace the rudiments of the fœtus with precision, they discover the different varieties of structure existing at an early period of growth; —that Nature has given to every variety of structure a principle or power, or organs of formation peculiar to itself, which continue to form and maintain the same structure from the cradle to the grave, unless their action be changed by disease; and that organs or vessels, forming or secreting bone, cannot depart from the creative law established by Nature, and the secret cellular texture, unless their primitive powers be changed or destroyed by disease, which is allowed to alter all our textures; and which, it is fair to infer, has most probably done so in all the cases where the natural structure of muscles, bones, ligaments, &c., have been reduced to cellular texture. I cannot, therefore, yield to any apprehensions of injurious structural changes of bone and muscle, from observing the recumbent posture in such cases of spinal curvature as require it, more than would be justified in scrofulous disease of the hip or knee-joints.

"Some adults, who have become thin from spinal curvature, have expected their muscles to be much enlarged by exercises, and have been disappointed: as exercise was found to increase their strength only, and bring their size up to the standard Nature intended, and no further. Their expectations probably arose from this circumstance:—During the growth of the parts of the body, repeated and long-continued exercises of particular muscles give them an extraordinarily large development, as is observable in the arms of sailors and blacksmiths or anchor-smiths, and in the legs of chairmen; but if an adult, after the completion of his growth, adopt the same exercises, the same muscular enlargement does not ensue."

Here are good arguments adduced in favor of a partisan view of the subject; but if the plea is good, it is a special one, and will, we think, fail to convince our readers of the innocence of long continued prostration.

What is contained in the annexed text, will appeal to the right feelings of the profession and the human heart:

"The length of time required for the cure of the varieties of lateral curvature varies with their causes. When it has originated from carrying a child on one side or from bad habitual postures of the body, the incipient disease will be remedied in a few months, and the patient should be particularly cautioned to avoid the remote causes, and to strengthen the system by every means. If it arise from unequal length of the lower extremities, and be incipient, it will be remedied in a few months, provided the patient abstains from walking about. If he continues to employ the erect attitude as usual, without any mechanical apparatus to counteract the disproportion, the time is indefinite, and the curvature will most probably increase.

"If a cuneiform shape of the vertebræ be induced in a rickety habit, and the ribs project backwards, accompanied with a tortuosity of the spine, one year at least will be necessary; and it will be found that the costal distortion will be the last remaining deformity to remove. If the disease be connected with scrofula, the duration and end are uncertain.

"When the curvature is ambilateral and of the shape of the Greek sigma, there is no chance of restoring the vertebral column to its spinal line, without the most rigid and persevering observance of all the mechanical and medical means, and even then, the degree of benefit to be derived is uncertain, and the time of obtaining it indefinite; but a degree of good equivalent to the confinement will be insured, if the means be employed during the growth of the body, an observation that leads me to an important topic of inquiry, how far curvatures are remediable, after the growth of the body has terminated. Of late, spinal curvatures have received some considerable elucidations from the spirit of medical investigation that characterizes this period; and have been made more the subject of discussion and of conversation. This has induced many adults to apply for opinions on cases of very long duration.

"The view I have taken of the subject is the following :—During the growth of the body, parts of the bony structure that are deficient may be supplied, and those that are redundant and disproportionate may be absorbed, and the equality of size and proportion be restored. After the growth of the body has been completed, and the curvatures are attended with unequal proportions of the thickness of the sides of the vertebræ, and of the length of the ribs and extremities ; it is clear that those alterations and additions of structure, necessary to restore symmetry of form, cannot be accomplished, without the creation of a new and successive growth of the diminutive bones or portions of bone ; and as the power of such a new creation is an attribute of the Deity, who has ended his work, and does not belong to man, it is impossible to remedy the finished deformity, or materially change it ; yet, there are those who impiously promise and audaciously and ignorantly attempt this new creation, and who rob their fellow creatures of their liberty and time, by consigning them to a long and useless confinement, a motionless rest, and the stretching of machinery, in vain, to counteract the ordinations of Providence, that has given all things their bounds, and has said, "thus far can ye go and no farther."

It will, perhaps, be expected that we should refer to Guerin's method of treating lateral curvature by sub-cutaneous division of the dorsal muscles. Although believing with him, that very many cases of curvature are produced by contraction of some of the dorsal muscles, still we cannot overlook the fact, that the bones of the vertebræ are essentially altered in shape ; in some cases so much so, that if all the muscles should be removed from the spine, very little in medical straightening could be effected by the application of force. The same power, mechanical or surgical, which would redress the bony structure, would also overcome the muscular contraction.

We ought to bear in mind, that we are treating living particles and not dead matter ; that changes take place slowly and in conformity to certain exact laws.

The cause of contraction, if it still exist, will operate against the method of division ; for long before the spine can be erected, the muscles will have united.

In torticollis, the vertebræ are not much affected, and the cases are not similar.

In club-foot, the division of the tendo Achillis would effect little should the tendon be allowed to unite firmly before extension should be made.

Experience, however, is the great test. If Guerin's success had been what his statement shows, no doubts as to his veracity would have been urged.

We remember one case of acute simple lateral curvature, produced by inflammation of the dorsal muscles, where we had determined to follow Guerin's method ; but, fortunately for the patient, a simple antiphlogistic and sedative treatment cured the patient, and the striking effects of dividing the muscles were lost.

For a full statement of Guerin's method, we take great pleasure in referring to the American edition of Velpeau's Operative Surgery, where a vast amount of information on this and kindred subjects may be obtained.

Angular Projection of the Spine—History and Symptoms.—Mr. Bampfield is not very graphic in his description of this distressing and heart-rending malady. He, however, gives all the symptoms, which are worthy notice, and peculiar to this variety of posterior curvature.

> "This species almost always invades the lower portion of the spinal column, and the principal seat of the malady and projection is in the lumbar vertebræ, the spinous process of the 3d and 4th of which generally forms the prominent angular point. I have, however, seen this form in the centre of the dorsal vertebræ. The reason why this distortion assumes the angular, instead of the curved figure, seems to be, because the lumbar vertebræ below are naturally incapable of so much flexion or of being bowed out so much as the upper vertebræ, or they offer an effectual resistance to it, from being so near a fixed point as the sacrum; hence, the vertebræ below the one disordered or deranged nearly retain their spinal line, whilst those above are removed from it."

It seems remarkable to us, that the experienced author should attribute the angularity of this species of curvature to want of flexion in the lumbar vertebræ. If the pathology be considered, and it is well represented in that standard work (Sir B. Brodie on the Joints), it will be seen that there is an absolute loss of substance in the bodies of the vertebræ, and as their loss is not reproduced, the sound vertebræ must fall together and thus produce the peculiar angular projection; this projection occurs very much more suddenly than where there is no loss of substance, as in the other forms of posterior curvature.

> "This distortion generally occurs in young persons from three years of age to twelve; but adults are sometimes obnoxious to it. The projection is formed in a very gradual manner; the spinous process of the 3d or 4th lumbar vertebra is first observed to protrude a little, or both may protrude when first noticed; and as this projection increases and enlarges, it bears out from the spinal line, and elevates five or six of the spinous processes of the vertebræ above it, so that when the projection has made considerable progress, the lower spinous process projects beyond the spinal line from half an inch to nearly an inch, while five or six above are gradually inclined outwards from one of the dorsal vertebræ in its natural situation, to the extreme point of angular projection, between which and the lumbar vertebræ, *in situ*, below it, there is a space in which the fore-finger may be pressed.
>
> "The transverse processes of the same vertebræ generally project on each side of the spinous processes, and elevate and stretch the muscles and integuments, so as to produce a bow or arch from side to side, which is supported in the middle by the spinous process. The sternum sometimes projects a little, as in excurvation. In the majority of cases, the muscular powers of the back and of the lower extremities are gradually weakened; but in some cases no loss of power is evident. The patients in general become debilitated and soon fatigued from exercise, so that they cannot walk long without seeking a resting-place to sit or lie down; when the projection is half an inch or more, the patient's body is commonly inclined forwards, the act of walking is imperfectly performed in a waddling gait, or the legs cross, and the patient falls down, or the dorsal muscles suddenly lose their power, and the patient stoops forward and seeks support by placing both hands above the knees. At all times, it is customary for the patients to avail themselves of any accidental support that falls in their route. In some cases, there is considerable pain experienced in the deranged vertebræ, and, in others, but very little or none, unless they are much pressed upon, and sometimes pain is not produced by pressure. The pains are sometimes sudden and severe, and compel the patients to throw themselves into the recumbent posture, wherever they happen to be when they supervene. Quick and sudden motions of the spine sometimes induce smart pains in the affected vertebræ. Pains of the back and of one or both knees, in some cases, disturb and prevent sleep, and compel the little patients to scream aloud. These pains generally occur in the night time, and are connected with, if not caused by, lumbar inflammation and abscess."

After stating that lumbar abscess, independent of caries, is accompanied by slight excurvation, and that the disease is sometimes propagated from an abscess to the vertebræ, and *vice versâ*, he thus describes the formation of lumbar abscess:

> "In the meantime, pus collects between the 2d and 3d, or the 3d and 4th, or the 4th and 5th, lumbar vertebræ, and at length opens through a small orifice of the anterior spinal ligament, either on the anterior or lateral portions of the vertebral joint, and pours forth its matter into the cellular tissue covering the spine, which becomes a lumbar abscess on one side; but in the process the orifice enlarges by ulceration, until the ligaments are destroyed all round the bodies of the two vertebræ, and the pus, issuing on both sides of the vertebræ, forms a lumbar abscess on each side, the matter of which gradually insinuates itself along the psoæ muscles, or the course of the external iliac artery under Poupart's ligament, and points at the top of the thigh, or it takes the direction of the hypogastric vessels and opens at the verge of the anus. The accumulations of matter behind the peritoneum frequently inflame that membrane, and sometimes break through it into the abdominal cavity. Sometimes, scrofulous ulcerations of other joints or parts precede that of the lumbar vertebræ, or are occasionally induced with it, or follow it. The pus discharged is sometimes laudable, is sometimes mixed with scrofulous coagula, and at other times is fetid and dark. With these local affections arise symptoms of hectic fever, debility and emaciation, which finally reduce the patient to skin and bone. The appetite is sometimes preserved in a tolerable degree, even within a few days of dissolution."

Appearances on Dissection.—The description on dissection is minute and faithfully done; the destruction of the vertebræ is discussed.

Sometimes only the intervertebral cartilages are ulcerated, and sometimes the bony structure, leaving the cartilaginous and fibrous parts in a state of comparative soundness.

We cannot condense this section, and it is too long for extraction. We refer our readers to the work itself for this interesting section, as being well worthy their attentive perusal.

Prognosis.

> "Every case of this disease that has been placed under my care within six months after its formation has been treated with success, unless caused by lumbar abscess already produced.
>
> "Cases of long duration, in which the previous symptoms of inflammation had existed, and in which emaciation, great debility, much pain of the back and hectic fever have been induced before due surgical attention has been paid, have terminated fatally."

The presence of lumbar abscess is a grave, although not always fatal, symptom.

Causes.

> "The remote causes of this species of spinal distortion are contusions of the spine; sprains of the lumbar vertebral joints; muscular debility; pressure of the cyst of lumbar abscess; a rickety growth or malformation of the bony bridge; and more frequently than any other, scrofulous or common inflammation of the intervertebral cartilage, and horizontal surfaces of the vertebral bodies.
>
> "The immediate causes, being the same as of other spinal distortions, must be sought for in a sturctural disproportion between the anterior and posterior portions of the vertebræ or intervertebral cartilages, or in the destruction of the horizontal surfaces of one or more vertebræ, and the intervertebral cartilages situated between them. The connection between the remote and proximate causes, or ultimate effect, has been already traced, in treating of the other forms of spinal distortion, particularly of excurvation—*Chap.* III. *Sect.* II."

> "A morbid increase of the bony bridge is not the only way in which angular projection is immediately produced. For the spinous processes most protrude, whenever the thickness of the bodies of one or two vertebræ is so much diminished by absorption, that one vertebra, especially in its long diameter, permanently inclines over its axis or centre, to its anterior half. For, as in their natural situation, most of the spinous processes slope downwards, and are locked together, so must one protrude outwards beyond its spinal line, whenever it is raised by depressing the anterior portion, or opposite end of the oblong bone of which it forms the other extreme part or end, and in proportion to the degree of the elevation of one spinous process, must the spinous processes, and bony bridge above, be raised, and throw the superincumbent weight of the column, &c., on the anterior parts of the bodies of the vertebræ."

These paragraphs, with what has been said of causes in excurvation, sufficiently show the author's views of the subject.

Treatment.—The author's views of treatment accord with our own: after directing leeches or cups to remove local pain, and attention to the digestive apparatus, he says:

> "When there is reason to suspect a scrofulous diathesis, from a history of the family, or from scrofulous affections being present in other parts of the body, a preventive plan of alteratives, and other medicines suited to the case, should be adopted; but, above all, the effects of inflammation should be watched, and counteracted by the means already enumerated.
>
> "If a judicious medical and mechanical treatment be resorted to in the early stage of angular projection, it seldom occurs that any great constitutional derangement supervenes; if it does, the remedies already mentioned, as well as those recommended for particular symptoms in excurvation, should be employed. Constipation should in all cases be obviated, and the digestive functions regulated, and preserved in health, by appropriate medicines and regimen. Should there be evident weakness of the dorsal muscles, without marks of inflammation, chalybeates and cold bath, local or general, have produced a decided good effect, used with an occasional laxative of rhubarb.
>
> "Should the endeavors fail to produce resolution of the inflammatory condition of the affected portion of the spine and suppuration, caries and abscess ensue; whilst the counter-irritants are continued, the strength should be supported by tonics, and a generous and nutritive diet, and pain should be allayed, and sleep produced by opium, or other narcotics, so that the constitution may be assisted in arresting the fatal tendency of this state of disease.
>
> "Pressure, extension of the spine, friction with stimulating liniments, &c., when issues are not established, are advantageously employed, as in the other varieties, as well as the use of the apparatus of bandage, compress and shield.
>
> "The bandage should be broad, and so applied that some of its turns reach high up on the ribs, and down on the pelvis, from which the patient experiences much relief and comfort. It need hardly be repeated, that pressure and extension should not be employed during the inflammatory or ulcerative stages of this form of disease, or of any species of curvature, when they produce irritation or pain; nor should they be used when it is supposed that an anchylosis, or deposits of osseous matter are forming.
>
> "After the mechanical and medical means have been attentively employed about three months, if the patient be directed to assume the erect attitude, and the spine be examined, it will generally be perceived that the lumbar portion of the spinal line is inclined forwards; when this effect is produced, and towards the end of the cure generally, lying on the back, and the frequent exercise of the lower limbs in flexion and extension, will prove advantageous, as it will tend to bring the spinal line into the natural axis of the body, and the forcible extension of the flexor muscles of the thigh will draw in the lumbar vertebræ. In the most favorable cases, there remains an apparent projection of about one-fourth of an inch of one or two spinous processes, or of one or two transverse processes, which pro-

trude a little beyond the level of the spinous processes, but this does not alter the natural axis of the body, nor prevent the patient from standing upright, and preserving the erect attitude, and is a mark of some disproportion of growth still remaining."

It is probably known to most of our readers, that the weight of authority, both in Europe and this country, is decidedly against the use of mechanical contrivances in curvatures of the spine, with caries of the vertebræ. The directions above, for stretching the spine, should, therefore, be used with great caution.

A *cured* case of this kind necessarily involves a protuberance, more or less projecting, from the fact that anchylosis is a step necessary in the consummation of separation. The bodies of one or more vertebræ being destroyed and the space not being filled up, the sound bones must approach each other, pushing out the canal and processes of the partly destroyed vertebræ. If, therefore, the spine be stretched before the sound parts come into contact and unite, there never can be a cure, because the necessary step of contact and adhesion will be prevented.

After anchylosis has somewhat advanced, then we believe and know that the figure and health may be greatly improved by the proper use of instruments.

By a simple corset, with an orifice for the protuberance to pass through, the spine may be bent backwards, thus overcoming the curvature and not in the least interfering with the process of anchylosis.

The support thus given, will enable the patient to take more exercise in the open air, and relieve him from the tedium and debilitating effects of constant prostration and inaction. The pain will often be relieved by this support, thus removing a source of irritation.

Another question in dispute is the employment of issues in the vicinity of the carious bones.

Mr. Bampfield decides, with Sir B. Brodie, in their favor; Dr. Mitchell, the editor of this work, against them.

When the object of the issues is fully understood, the practical surgeon will probably sometimes use and sometimes reject them. In a scrofulous habit, issues are eminently beneficial here, as in all other joints. If the disease arises from injury, then perhaps a drain will be of little benefit. If pus has already formed, then again a small external drain will not effect much.

If tuberculous matter be deposited in the bodies of the vertebræ, undoubtedly an issue will delay or prevent its softening, and time will be gained to correct the vitiated habit.

The remaining part of the work, being of a different character, will, with great propriety, form the subject of a separate and future notice.

We heartily recommend this book to all who feel an interest in the matter, and especially in these days of degenerating specialties. There is no mystery in spine-doctoring any more than in properly treating club feet, though the professors of these branches would have us think to the contrary.

With the exception of improved mechanical contrivances, there has been little advance since Mr. Bampfield wrote his truly valuable and truthful essay. R. S. K.

Art. IX.—*The Sanatory Condition of the Laboring Population of New York, with suggestions for its Improvement; a Discourse (with additions) delivered on the 30th December, 1844, at the Repository of the American Institute.* By John H. Griscom, M.D., Fellow of the College of Physicians and Surgeons; Physician of the New York Hospital; late Physician of the City and Eastern Dispensaries. New York: Harper & Brothers. 8vo., pp. 58. 1845.

The author of this truly able and philanthropic discourse, has made himself widely and most favorably known to the reading and scientific portion of the public, by his luminous report, while filling the office of City Inspector (1842), as well as his communication to the Common Council recommending a re-organization of the Health Police. With the great body of the profession, we were strongly in hopes that our city authorities would so far break the shackles of party discipline as to continue in office one who had displayed such signal capacity and qualifications for the station to which he had been appointed, that he might be able to introduce some, at least, of the reforms and improvements so much needed in our Sanatory Police, and which he was the first to suggest; but in this we were disappointed; and not only so, but doomed to see this responsible office filled by an individual who was confessedly incompetent to the proper discharge of its duties, and who was continued in the same after his incompetency was shown, and in the face of the earnest and respectful remonstrance of the medical faculty of this city.

It appears that the substance of the present discourse was originally addressed, in the form of a letter, to the chief magistrate of the city, with a view to an exposition of the true principles which should regulate the action of public bodies in matters relating to the health of cities. The Mayor, appreciating fully the importance of the facts and reasonings set forth, transmitted the communication to the Common Council, recommending it to their serious attention. After several weeks' deliberation upon it, the committee, it seems, to whom it was referred, arrived at the following conclusion, as embodied in their report:—"Your committee do not profess to be judges of the subject, or, in other words, they do not think it proper, at this time, to go into such a measure!" and they recommended the paper to be returned to its author. This report, by the way, reminds us of a certificate lately sent in to the City Inspector by one of the enlightened body whom the Legislature allows to practise the healing (?) art among our citizens, and which has been handed us by the assistant in that office:—"This woman was died, because she did die, and she was die of *vickness*, and she could not live."—Signed, Dr. ———. Under these repeated discouragements, Dr. G. now comes before the public to advocate a plan of *Sanatory Reform*—a plan designed to relieve the city of a part of the heavy burdens of sickness and mortality, which now oppress its population, more especially that portion least able to relieve themselves and most requiring the interposition and protection of the law. It is a measure, we are satisfied, of humanity and justice to the poor, of safety to the whole people, and of economy to the public treasury.

"No duty," says Dr. G., "can engage the attention of the magistracy of a city or state, more dignified in itself, more beneficial to the present generation, or more likely to prove useful to their descendants, than that of procuring and maintaining a sound state of the public health.

> "Of the three objects contemplated in the Declaration of Independence as necessary to be secured by government, the first named is 'Life.' Higher purposes cannot be conceived for which governments should be instituted.
>
> "As upon the condition of health of an individual are based his physical and mental strength, his ability for self-maintenance, his personal happiness, and that of others dependent on him, and also his usefulness to his family, to the community and his country; and as the community depends for its prosperity upon the performances of its members, individually and collectively, in the measure of influence committed to them respectively, so does the health of the people affect the capacity and interests of the state.
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> "As upon the individual, when sick, falls an increased pecuniary burden, with (in general) a suspension of income, upon the state or city must rest, not only the expenses of removing an unsound condition of public health, but also, from the attendant loss of character, a diminution of its resources.
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> "When individuals of the pauper class are ill, their entire support, and perchance that of the whole family, falls upon the community. From a low state of general health, whether in an individual or in numbers, proceed diminished energy of body and of mind, and a vitiated moral perception, the frequent precursor of habits and deeds, which give employment to the officers of police, and the ministers of justice.
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> "These, among other considerations, together with the recent expression by the chief magistrate of the city of his interest in the sanatory condition of his constituency, by the recommendation to the Common Council of a measure of no ordinary importance to their welfare and comfort,* induce me to urge attention to a measure of improvement which has long impressed my mind, as one, above all others, demanding the action of the City Government."

Dr. Griscom states that it is his object, in the present discourse, to show, 1st, that there is an immense amount of sickness, physical disability, and premature mortality, among the poorer classes; 2d, that these are, to a large extent, unnecessary, being, in a great degree, the results of causes that are removeable; 3d, that these physical evils are productive of moral evils of great magnitude and number, and which, if considered only in a pecuniary point of view, should arouse the government and individuals to a consideration of the best means for their relief and prevention; and, 4th, to suggest the means of alleviating these evils and preventing their recurrence to so great an extent.

After pointing out the difference between *public* and *private* health, depending chiefly on the cause being *personal or general*, Dr. G. proceeds to speak of the *system of tenantage* to which large numbers of the poor are subject, as one of the principal causes of the helpless and noisome manner in which they live.

> "The basis of these evils," he observes, "is the subjection of the tenantry, to the merciless inflictions and extortions of the *sub-landlord*. A house, or a row, or court of houses, is hired by some person of the owner, on a lease of several years, for a sum which will yield a fair interest on the cost. The *owner* is thus relieved of the great trouble incident to the changes of tenants, and the collection of rents. His income is sure from one individual, and obtained without annoyance or oppression on his part. It then becomes the object of the lessee, to make and save as much as possible, with his adventure, sufficient sometimes to enable him to purchase the property in a short time.
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> "The tenements, in order to admit a greater number of families, are divided into small apartments, as numerous as decency will admit. Regard to comfort, convenience, and health, is the last motive; indeed, the great ignorance of this

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* Public Baths.

class of speculators (who are frequently foreigners and keep a grog shop on the premises) would prevent a proper observance of these, had they the desire. These closets, for they deserve no other name, are then rented to the poor, from week to week, or month to month, the rent being almost invariably required in advance, at least for the first few terms. The families moving in first, after the house is built, find it clean, but the lessee has no supervision over their habits, and however filthy the tenement may become, he cares not, so that he receives his rent. He and his family are often found steeped as low in depravity and discomforts as any of his tenants, being above them only in the possession of money, and doubtless often beneath them in moral worth and sensibility.

"It is very frequently the case that families, after occupying rooms a few weeks, will change their location, leaving behind them all the dirt which their residence has occasioned. Upon this the next comer will sit down, being so much occupied with the hurry of moving, and with the necessity of placing their furniture immediately in order, that attention to cleansing the apartment is out of the question, until they are 'settled,' and then, if done at all, it is in the most careless and inefficient manner. Very often, perhaps in a majority of cases in the class of which I now speak, no cleaning other than washing the floor is ever attempted, and that but seldom. Whitewashing, cleaning of the furniture, of bedding, or persons, in many cases is *never* attempted. Some have old pieces of carpet, which are never shaken (they would not bear it), and are used to hide the filth on the floor. Every corner of the room, of the cupboards, and the entries and stairways, is piled up with dirt. The walls and ceilings, with the plaster broken off in many places, exposing the lath and beams, and leaving openings for the escape from within of the effluvia of vermin, dead and alive, are smeared with the blood of unmentionable insects, and dirt of all indescribable colors. The low rooms are diminished in their areas by the necessary encroachments of the roof, or the stairs leading to the rooms above; and behind and under them is a hole, into which the light of day never enters, and where a small bed is often pushed in, upon which the luckless and degraded tenants pass their nights, weary and comfortless.

"In these places, the filth is allowed to accumulate to an extent almost incredible. Hiring their rooms for a short period only, it is very common to find the poor tenants moving from place to place, every few weeks. By this practice they avoid the trouble of cleansing their rooms, as they can leave behind them the dirt which they have made. The same room being occupied in rapid succession by tenant after tenant, it will easily be seen how the walls and windows will become broken, the doors and floors become injured, the chimneys filled with soot, the whole premises populated thickly with vermin, the stairways, the common passage of several families, the receptacle for all things noxious, and whatever of self-respect the family might have had, be crushed under the pressure of the degrading circumstances by which they are surrounded."

The next subject alluded to by Dr. G. is *ventilation*, which is generally entirely prevented by the manner in which rooms are planned; they having one or two windows and a door at one side of the room, but no opening anywhere else, so that a draught of air *through* is an utter impossibility. A four years' service, in the capacity of out-door dispensary physician, enables us to bear positive testimony to the fidelity of Dr. G.'s sketches. What more life-like and vivid than the following pictures?

"The confined position of the dwelling itself, generally, prevents the access of the external currents of air, even to the outside, to any considerable extent. The window sashes, in addition, perhaps are so arranged, that the upper one (if there are two) cannot be let down, being permanently fastened up; hence the external air, poor as it is, cannot visit the upper section of the room, unless by opening the door, by which the interior of the room is exposed to view. If there is a sleeping apartment, it is placed at the extremity of the room farthest from the windows, is generally but little larger than sufficient to hold a bedstead, and its area is reduced, for air, by the bed furniture, trunks, boxes, &c., and having no windows, fresh air and sun-light are entire strangers to its walls. In this dark hole there is, of course, a concentrated accumulation of the effluvia of the bodies and breaths of the persons sleeping in it (frequently the whole family, several in number), and this accumulation goes on from night to night, without relief, until it can easily be believed the smell becomes intolerable, and its atmosphere productive of the most offensive and malignant diseases. There is no exaggeration in this description. I cannot too highly color the picture, if I would. What, then, will be thought of the condition of thousands of our fellow-citizens in the *winter season*, when every crevice is closed to keep out the cold air, and when I state that what I have described, I have repeatedly seen and felt in the *summer*, when the windows and doors are opened to the fullest extent, day and night, admitting all the ventilation possible, small as it is.

"I have had recent occasions to visit several of these pestiferous places, and I pen these paragraphs in the month of August, with their sight and smell fresh upon my senses.

"The almost entire absence of household conveniences contributes much to the prostration of comfort and self-respect of these wretched people. The deficiency of water, and the want of a convenient place for washing, with no other place for drying clothes than the common sitting and bed rooms, are very serious impediments in the way of their improvement. Without any convenient or safe place to deposit wood, or coal, or food in large quantities, all their purchases are by 'the small,' from the neighboring grocer (who is perhaps the landlord), at prices from 10 to 50 per cent. above the rates at which they might be obtained, under better circumstances.

"But the most offensive of all places for residence are the *cellars*. It is almost impossible, when contemplating the circumstances and condition of the poor beings who inhabit these holes, to maintain the proper degree of calmness requisite for a thorough inspection, and the exercise of a sound judgment, respecting them. You must descend to them; you must feel the blast of foul air as it meets your face on opening the door; you must grope in the dark, or hesitate until your eye becomes accustomed to the gloomy place, to enable you to find your way through the entry, over a broken floor, the boards of which are protected from your tread by a half inch of hard dirt; you must inhale the suffocating vapor of the sitting and sleeping rooms; and in the dark, damp recess, endeavor to find the inmates by the sound of their voices, or chance to see their figures moving between you and the flickering blaze of a shaving burning on the hearth, or the misty light of a window coated with dirt and festooned with cobwebs—or if in search of an invalid, take care that you do not fall full length upon the bed with her, by stumbling against the bundle of rags and straw, dignified by that name, lying on the floor, under the window, if window there is;—all this, and much more, beyond the reach of my pen, must be felt and seen, ere you can appreciate in its full force the mournful and disgusting condition, in which many thousands of the subjects of our government pass their lives."

"There vapors, with malignant breath
Rise thick, and scatter midnight death."

As to the importance of ventilation, both in the way of the prevention and cure of diseases, scarcely too much can be said, and we believe that the attention of physicians has been hitherto too little directed to this subject. We think it may be easily shown that a vitiated atmosphere is a more powerful cause of pulmonary consumption and scrofula than bad food, hereditary predisposition, or any other single cause that can be named. On this head, Dr. G. remarks:

"Dr. Reid, the ventilator of the new houses of parliament, places the quantity of air necessary for the perfect, free, and wholesome respiration of each adult person at ten cubit feet per minute.* Others before him have estimated it as low as two cubic feet. I coincide with Dr. Reid in his statement of the amount necessary for the attainment and preservation of *perfect health;* but the latter estimate is entirely too low. If we take the average of these two extremes (six feet), we shall find that the ten persons in the cellar of 50 Pike-street would render its 700 feet of air unfit for the support of health, *in less than fifteen minutes.* Now, suppose them to retire and close the door and window at ten o'clock at night, what must be the condition of the air of the room when they rise at five the next morning?

"Is it astonishing that the Dispensary is called upon, very frequently, to extend its aid to these inmates? and should there not be some remedy for this dreadful state of things? The whole of these premises, besides the cellar, is in a condition unfit for human habitation, and yet crowded to a melancholy degree. A sanatory law that would reach this case, and be well applied, would save a large amount of life, health, money, and morals. The same may be said of hundreds of other places, of which this is a fair average sample. There are many places still worse.

"An inquiry into the amount of air allowed to children in schools, to the inmates of prisons, and to the laborers in work-shops, will exhibit a degree of neglect, or ignorance, in relation to this vitally important subject, in individuals having the training and guardianship of these classes, truly lamentable, as well as surprising. For examples.

"One of the Public Infant Schools of this city, having an average attendance the year round, of 200 children, was for a long time, and until recently, kept in the basement of a church, the dimensions of which were $46 + 30 + 8\frac{1}{2}$ feet, equal to 11,730 cubic feet. The proximity of the adjoining buildings rendered it so dark in a sunny day, it was difficult to see to write on a slate a short distance from the windows. A large stove warmed the room in winter. These children had about sixty cubic feet each, for the six school hours, equal to ten cubic feet per hour, when each child should have ten cubic feet per minute. *Ventilation was unthought of*, until recently, and now in consequence of the position and arrangement of the building, it is very imperfect.

"The dormitories of the House of Refuge have each an area of less than 200 cubic feet. When the door is closed on the inmate, his bed, which is about eighteen inches from the floor, is extended nearly across the cell, diminishing by so much its atmospheric area, and intercepting almost wholly the communication between a very small opening at the bottom, and another at the top, and one in the middle, of the door. Those openings were intended, but are wholly inadequate, for ventilation, even if no bed were there. For the perfect decarbonization of the blood, the air in each dormitory, at the lowest proper estimate, will remain sufficiently pure for the space of thirty minutes only, yet the youthful inmates are locked in from 8 P. M. till 5 A. M. *nine hours, with no other ventilation than what I have described.* Their work-shops cannot be said to be much better supplied with air. The effects of this privation are plainly marked upon the countenances, and general physical development, of the children.

"The general arrangement of the cells in the City Prison is but little, if any better. Besides the small window near the ceiling on one side, air is admitted only through *five auger holes in the door* on the opposite side, and these latter are of no service at night, when the inner door is closed."

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* "If we look to the fact that less than half a cubic foot of air passes through the lungs of an adult in a minute, this estimate may at first appear excessive, but if we remember, that at each expiration, a quantity of air is emitted, which mingles with an additional portion of air largely exceeding its own bulk, and that there are twenty such expirations in a minute, while provision is likewise required for the air that affects the surface of the body, and for the endless variety of minor effects produced by furniture, lighting, eating, refreshments, &c.; where no peculiar adaptation for these purposes has been introduced beyond those usually observed, it will be seen that the estimate is by no means immoderate. *The real question is not, what the constitution can bear, but* that amount which is conveniently accessible in ordinary habitations, *and which is essential for the wants of the system.*"—ILLUSTRATIONS OF THE THEORY AND PRACTICE OF VENTILATION, BY DAVID BOSWELL REID, M. D.

Dr. G. next proceeds to show the effects of this degraded and filthy manner of life upon the health of individuals and the duration of their lives, as well as its influence upon their morals, self-respect, and appreciation of virtue. It seems that, for the year ending March, 1844, there were prescribed for at the offices and the homes of the poor, at the

Northern Dispensary, - - -	13,317	patients.
Eastern " - - - -	17,107	"
New York " - - - -	23,858	"
Total, - - -	54,282	

of which deduct those vaccinated, 4,505, and there still remain about 50,000, who annually receive aid from these charities. But then, during the same year, there were admitted into the Alms-House Hospital, 2,332 patients, and into the City Hospital about 1000, exclusive of seamen, which makes a grand total of over 53,000, without enumerating the sick poor, attended by private charity. This shows an immense amount of sickness among the poorer classes of this city, and shows it to be the imperative duty of the magistrate and philanthropist to institute an inquiry into its causes, with the view of preventing and alleviating it. The annual reports of the City Inspector show that nearly one half of the deaths by consumption are of the foreign portion of the population, and that more than *one-third* the whole number of deaths are of foreigners; and this fact is explained by the circumstance that a large majority of the cellar and court population of this city consists of persons of foreign birth and their children; about 60 per cent. of Dispensary patients are natives of other countries, and reckoning their children, over 75 per cent. Putting these facts then together, we believe Dr. G. is justified in the conclusion, that the domiciliary condition of these poor beings, the confined spaces in which they dwell, the unwholesome air they breathe, and their filth and degradation, are prolific sources of an immense amount of distress and sickness, which, in their turn, serve, by the loss of time, of wages, and of strength, to aggravate the miserableness of their condition, to increase the danger to the public health, and the burden of public and private charity.

"The evils," says Dr. G., "thus resulting are occasionally exhibited in an endemic form, i. e., some disease of a marked character will break out and attack a considerable number of persons in the same neighborhood, the extent of its prevalence depending upon the extent of the cause, or the facilities for its propagation. Thus a fever may commence in a certain place inhabited mostly by the destitute and filthy :—if the adjoining tenements are occupied by the same class of persons, and kept in the same dirty and ill-ventilated condition, the tenants of the latter will be very liable to attacks of the same disorder. The disease will often be observed to pass by houses in a better condition, and re-appear at a distance, where similar causes prevail.

"Frequently, too, the prevailing disorder, though perhaps covering a large district, will be seen only in certain parts of houses, as the cellars. Several instances of this have occurred in New York, one of which was the memorable Banker (now Madison) Street fever of 1820. 562 blacks inhabited the infected district, of whom 119 lived in cellars; of these 119, 54 were sick of the prevailing fever, and 24 died. Of the remaining 443, who lived above ground, 101 were sick, and 46 died. Out of 48 blacks in 10 cellars, 33 were sick, of whom 14 died, while out of 120 whites, living immediately over their heads, in the same houses, not one even had the fever. Numerous other instances have occurred, which have attracted less attention, probably because of their frequency rendering them less notorious. But there is, as is well known to the physicians who move among these haunts of wretchedness, a silent agency continually at work, destroying annually the health and lives of hundreds of our fellow-citizens, and entirely within the power of the city government to control or subdue, but which, by a strange neglect, appears to have been hitherto allowed to work out destruction unopposed."

Next follow letters from Drs. Swett, Wood, McCready, and others, showing the influence of locality, filth, want of ventilation, &c., in producing endemic fevers and other diseases. For example, Dr. Swett describes an epidemic that prevailed in the autumn of 1837, in a district bounded on the north and south by Walker and Chatham streets, and extending east and west from Allen to Mott streets. The number of cases of fever were about thirty, and Dr. S. states that they all occurred either in basements, or the first floor of houses that had neither basements nor cellars under them.

The influence of locality, &c., might be very forcibly illustrated by tracing the ravages of the malignant cholera in this city in the years 1832 and '34. This disease, as is well known, selected for its victims chiefly those who resided in low, damp situations, as unventilated cellars and basements; in this respect resembling the Banker street and other endemic fevers that have occasionally prevailed in some districts of the city. One two-story wooden building, we recollect, standing in the rear of a lot in Christopher street, near the river, was tenanted from garret to cellar (the entrance to which latter was by a trap-door, without a single window for the admission of air or light, and in which a family of six resided), by a population of sixty persons, old and young. The cholera broke out among them, and within five days sixteen dead bodies were removed from that house, while at least ten others were attacked, who were removed to the hospital, several of whom died there. At last, by orders from the Board of Health, the premises were forcibly evacuated, and such was the resistance of the infatuated tenants, that it could only be done by force; the furniture, if the miserable stools, rags and litter could be called such, was all piled up in the street and burned, amidst the howlings and lamentations of the owners; the premises were then washed and scrubbed, and the tenants dispersed. We mention this as one of numerous instances that crowd upon our recollection, where filth, want of ventilation, and too crowded dwellings, have given extraordinary malignancy to epidemic causes, when prevalent.

Dr. G. offers some very judicious remarks on food, which are well worthy of consideration:

"Among the diseases most frequently resulting from an imperfection in the means of life, is *scrofula*, in its Protean forms. Dr. Watson, of London, the latest authority in the Practice of Medicine, in speaking of the general causes of this disease, enumerates the most prominent. 'Insufficient nutriment, exposure to wet and cold, impurity of atmosphere, want of natural exercise, and mental disquietude. To estimate the separate effects of each of these causes may be difficult, but their combined influence is unquestionable.' After a considerable experience in Dispensary and Hospital practice, I hesitate not to declare, and believe I shall be supported in the opinion by my colleagues in the institutions with which I have been and am now connected, that *this disease is a great scourge of the pauper population.* It exhibits itself in the skin, in the eyes, the viscera of the abdomen and of the chest, in the muscles, and in the bones ; in fact, every organ of the body, which is dependent for its healthy condition upon a sound state of the blood (and there is no exception), may and does give evidence, differing in each case, of the influence of this degeneration, and the great prevalence of its producing causes.

"The question will very naturally arise in the reader's mind, whether much of the ills to which the poor are heir, is not produced by the necessarily restricted quantity, and impure quality, of their food. To this I reply, that food, in the varied imperfections of quality and amount, unquestionably constitutes one of the most frequent and powerful of the causes of human diseases generally. It is under some of the circumstances of animal organization, no less important to the maintenance of life and sound health, than air, with, however, this great and essential difference, viz. that an individual may exist several days without any additional food, but not three minutes without air. Further, if he is deprived of but one of the ingredients of the atmosphere, oxygen, instant death is the consequence.

"I believe, however, it will be found, in a vast majority of cases, where food is properly accounted a cause of illness, this is produced by *too great a quantity being eaten*, or by an alteration of its properties by the refinements of cookery, and the addition of stimulating condiments. Plethora, and its long train of ills, are the results of over feeding, and over stimulation, but these are not the diseases of the poor. Among them we rather find, Cachexia,* Scrofula, and all the consequences of debility and vitiation, which are far more attributable to an imperfection and paucity in the necessaries of life, more especially of air, clothing, and cleanliness. Dyspepsia, almost wholly the effect of improper dieting, is scarcely ever found in Dispensary practice, while no disease is more common with the wealthier classes. All the ills for which the poor seek advice, whether peculiar to them or not, are aggravated, and altered in character, not by the food they eat, so much as by the air they breathe, and their other depraved physical circumstances of life. The sin of intemperance in eating cannot be laid at the doors of the cellars, and the entrances of the alleys and courts ; while that of intemperance in drinking, though a dreadful addition to the horrors of his already too degraded physical and moral condition, is, with the ignorant and poverty-stricken troglodyte, a venial fault, in comparison with the pampered luxuriousness and equally injurious and intemperate, though more refined indulgences of his wealthier and more responsible neighbor."

"Atmospheric air is to the animal system, a powerful stimulant as well as nutrient substance. In sufficient purity and copiousness, it imparts a sustaining and vivifying power unequalled by any other substance. Its vitalizing operations present one instance of the wonderful adaptations of natural things to each other, but it is singularly striking, because of the immediate and incessant dependence of animals upon it, for life and strength. Air, when pure, gives a freshness and vigor, a tone to the nervous and muscular parts of the system, productive of the *highest degree* of mental and physical enjoyment. Without the tone thus imparted, the functions of the system become relaxed, and in addition, the animal spirits and feelings become depressed and uneasy. To relieve this condition, nature instinctively seeks some stimulating means. Many feed on mental excitement—the stimulus of business with some, with others of society, with some of hope and expectation, keep alive the energies. But the farmer feeds his nervous and general strength on fresh air and wholesome labor. Artificial stimulus is not required by him, he does not feel its want, and has comparatively little relish for it. But the dwellers in cellars, courts, and ill-ventilated garrets, depressed and prostrated by the want of stimulus given by nature, unable to enjoy the feelings guaranteed by an unfailing abundance of oxygen, *instinctively* feel the want of a substitute; *they find it in alcohol.* The allurements held out by those dens of destruction, abounding on all sides, add temptation to instinct, and the child of ignorance and misfortune terminates his senses, and often his life, the victim of licentiousness and unnatural debauchery.

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* A bad habit of body, known by a depraved or vitiated state of the solids and fluids.

"First take the drunkard from the cellar, give him the stimulus of a pure atmosphere, relieve the demands of nature in this particular, and the work of reformation is half done, and will then go on with increased vigor; but as long as he is deprived of the sustaining power offered by nature, his artificial appetite will be less easily appeased.

"The community is guilty of the double offence of cutting off from the destitute part of its members a proper supply of air, in other words, of exciting an appetite for a vile and destructive substitute, and then of presenting to them at almost every corner, opportunities for indulgence in the poison."

Our space does not allow of further extract from this able discourse. We hope, however, it will be extensively circulated and read. It is the best tract to place in every family in this city that we have ever met with, and as such we earnestly commend it to the managers of the Tract Society. Every one acquainted with the actual sufferings and deprivations of the lower classes, knows full well that physical distress opposes a most effectual bar against their moral and religious instruction, and that the moral and religious sensibilities are not only blunted, but well nigh destroyed, by such influences. Their morals cannot be improved without first improving their physical condition.

We have been surprised to witness the apathy which exists in the public mind in relation to the many physical causes of disease in our large cities, that might, with suitable precautions, be readily obviated, but are now allowed to exist without "let or hindrance." Look at our abominably filthy streets; our population of 33,668 living in alleys, courts and cellars; our houses tenanted by an unlimited number of occupants; slaughter-houses, soap, and lard-oil (from putrid meat) factories, &c., in the densely populated parts of the city; our prisons, school-houses, churches, court-rooms, and private houses, without any adequate means of ventilation; look at our Croton water, designed as a blessing, but in danger of proving a curse, saturating our entire sub-soil, penetrating into vaults. cellars and basements; our cisterns changed into cess-pools, into which all kinds of refuse matter is thrown, there to fester, and ferment, and generate poisonous effluvia, in the immediate precincts of our bed-chambers and sitting-rooms; see our grave-yards, vaults, and other burying-places, sending forth their pestiferous miasmata, and then wonder, if you can, why we have a weekly average of nearly two hundred deaths announced in the bills of mortality. While other governments are instituting inquiries into the state of large towns and populous districts, appointing commissions to investigate the causes of disease among the inhabitants, the best means of promoting and securing the public health, and improving the condition of the lower classes, in order to establish a complete system of public hygiene,—our municipal bodies are doing nothing.* We have the results of the labors of one of these royal commissions, embodied in a ponderous folio of 682 pages, chiefly filled with the testimony of distinguished physicians (and who so well qualified to testify as they ?), all going to prove, that defective drainage, neglect of house and street cleansing, ventilation, and imperfect supplies of water, contribute to produce atmospheric impurities, which affect the general health and physical condition of the population; generating acute, chronic, and ultimately organic disease, especially scrofulous affections and consumption, in addition to fevers, cholera infantum, and other forms of disease. The health of this city is now endangered by the want of a general system of sewerage, by which, not only the surplus water from the hydrants, cisterns, unused wells, &c., which now finds its way into basements and cellars, rendering them damp and unhealthy, may be conveyed off, but also the immense mass of filth that is daily generated, may be effectually removed. We agree, therefore, with Dr. G., that if we can but discharge all the contents of our sinks and cess-pools, through sewers, into the rivers, we shall avoid two of the most powerful causes of sickness and early death.

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* It would be a curious item of statistics to know how many private suits have been brought by our citizens, during the last ten years, against the proprietors of slaughter-houses, sulphur and soap factories, lard-oil establishments, &c., for nuisance, with no other effect than that of incurring bills of cost, which the plaintiffs have had to pay. We have been exceedingly amused, at some of these trials, at the ingenuity manifested on the part of the defence. For example, the law makes a distinction between a *public* and a *private* nuisance. Now, a *public* nuisance must be one which

Art. X.—*Vital Chemistry; Lectures on Animal Heat.* By Thomas Spencer, M.D., Professor of the Institutes and Practice of Medicine in the Medical Institution of Geneva College. Published by Request of the Class. 12mo. pp. 114. Geneva, 1845.

We had designed to give a somewhat extended notice of these Lectures, which, it appears, have constituted a part of the author's annual course on the Institutes of Medicine, in Geneva College, for several years past: but our space will not permit. Indeed they are condensed to that degree, as hardly to admit analysis, excepting by giving the whole as they stand, and, therefore, we prefer to advise the reader to purchase the work, and thus save us the labor of attempting a condensation in our pages. As to the invidious task of criticism we leave that also to the reader, or to other journalists if they can find ought to criticise, which is, perhaps, not improbable, considering the ground which the Professor's hypotheses cover; we think, however, that all must admit, that the author has sustained his theories with great ingenuity and talent, and that if the results arrived at are untenable, they are apparently sustained and fortified by ascertained facts, admitted by the highest authority. Beginning with an attempt to explain the vapor of the pulmonary excretion, Dr. S. appears to have been led by successive steps, to a belief, not only in the chemical relations of respiration and calorification, but of all the functions and phenomena of organic life; so that, after several years' reflection and study, he claims to have determined a *circle of vital affinities*, uniting all the

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affects the public generally; but the stench of a slaughter house, for example, does not extend in any one direction, except in certain states of the wind, more than fifty rods; ergo, it is a *private*, not a *public* nuisance. We have seen this defence successfully set up in such cases in more than one instance.

structures and functions of the organism, and making each set of capillaries mutually dependent on and balanced by others, in the chemico-vital changes produced upon their passing currents of blood. If it should be deemed presumptuous, in the present state of animal chemistry, to attempt to demonstrate the several links in this physiological chain, it must, at the same time, be conceded, that unless the attempt be made, the task never will be accomplished ; and that even errors and failures in the attempt, will not be without their use, in aiding subsequent investigators in arriving at more satisfactory results. The chief difficulty that strikes us in admitting the author's hypotheses, is the presumption that carbonic acid is educed in the system ; whereas, we have reason to believe that every process in the human body is one of oxydation or combustion. But without further comment, we add a brief summary of the author's doctrines, as laid down at the end of his lectures.

" *General Summary of the first two Lectures.*—The following *summary* may be presented upon the reciprocal chemical changes of the blood in the capillaries of the lungs and system, and the *connection* of respiration with calorification :

" 1. The lungs perform an excretal office on which life constantly depends, because directly and indirectly aiding calorification.

" 2. The substance thrown off is Hydrate of Carbon.

" 3. The Carbon, on coming in contact with atmospheric Oxygen, combines with it, forming Carbonic acid gas, which is thrown off from the lungs and skin by expiration and perspiration.

" 4. The amount of latent heat of the Oxygen gas employed, is much greater than that of the Carbonic acid gas formed in the lungs, and hence, caloric is set free, imparting heat to the blood and surface.

" 5. This free heat also combines with the water of the Hydrate of Carbon, and converts it into vapor.

" 6. The lungs and cutaneous surface aid in regulating animal temperature by the conversion of water into vapor, thus conveying off any excess of free caloric in the system by combining with it in the form of latent heat.

" 7. The water of the Hydrate of Carbon is converted into vapor in the lungs and upon the surface, precisely as when wood is burned, and hence assumes the form of insensible respiratory and perspiratory transpiration.

" 8. Facts appear to show that the chemical change in both venous and arterial blood may occur, independent of the vital principle, by applying to the venous, Oxygen gas, and to the arterial, Carbonic acid gas.

" 9. The systemic red capillaries are the antagonists of the pulmonary, and are constantly decomposing Carbonic acid, and, with water, forming Hydrate of Carbon ; or, in other words, carbonizing the blood.

" 10. From this union, water and Carbonic acid are transformed into a solid substance, and, hence, latent becomes free heat, at every point where red blood circulates.

" 11. The function of the systemic red capillaries of the body in *decomposing*, and that of the small vessels of the lungs and skin in *recomposing* Carbonic acid gas, reciprocally depend upon and *balance* each other ; in other words, one set *carbonizes*, the other *decarbonizes* the blood.

" 12. In consequence of this indissoluble link which connects the functions of respiration and calorification, the degree of temperature, the Carbonic acid evolved, and the size of the lungs as compared with the bodies of animals, always bear a direct ratio to each other.

" 13. There is a beautiful analogy between animals and vegetables, in the decomposition of Carbonic acid by the minute vessels of each.

" 14. This explanation shows that the great end and function of respiration is, both *directly* and *indirectly*, to aid in the all-important office of the generation and diffusion of animal heat.

" 15. The undetermined questions left in closing our last Lecture (§ 21. 3, 4,) have been settled by proving, *first*, that the coloring pigment of venous blood is not elemental Carbon, but *second*, is a compound of Carbon and water."

"The lungs are not only employed in the functions of *excretion* and *calorification* in expelling and oxidizing the Carbon of the Hydrate of Carbon, but are the last of the organs of *hæmatosis*, viz.:

"1. In decarbonizing the chylous and other constituents of blood, thus fitting them for nutrition.

"2. This decarbonization of the elements originally entering the animal as food furnishes the Carbon of Carbonic acid, and the Hydrate of Carbon employed in the function of calorification.

"3. That the Oxides of Iron are the first instruments for oxidizing and deoxidizing Carbon as the important agent in calorification, while atmospheric Oxygen is the last agent.

"4. The protoxide of iron is the carrier of the carbonic acid from the lungs to the systemic capillaries.

"5. The affinities of the iron in its circle for calorification show, that if either Oxide exists as a constituent of blood, the other Oxide must necessarily be formed;—the *pulmonic* and *systemic* capillaries antagonizing and balancing each other, in *oxidizing* and *deoxidizing* these compounds."

"We have traced all the connecting links of vital chemistry in the changes of the Carbon and iron from the lungs, through each set of capillaries back to the stomach; thus completing the circle of affinities, which these important agents perform in heating the furnace of the living locomotive.

"The answers to the unsettled questions at the head of the chapter, as to the source of the iron and its oxides in blood, may be briefly summed up—

"1. The iron is originally derived from vegetables, in the form of oxide of iron.

"2. This oxide of iron is converted into perchloride of iron by the muriatic acid of the gastric juice, and thus rendered soluble.

"3. The perchloride of iron is reconverted in the lungs into the hydrated peroxide of iron by the free soda of the blood.

"4. The hydrated peroxide is converted into the protoxide in the lungs, by oxydizing the Carbon of the nutritious fluids.

"5. The protoxide carries Carbonic acid thus formed to the systemic capillaries for calorification, and is there reconverted into hydrated peroxide.

"6. In the series of chemical compositions and decompositions of iron and Carbon, as explained, an exact balance is preserved in the amount of each at all points of the organism where employed for calorification.

"7. The oxides of iron are, *probably*, employed in *oxidizing* and *deoxidizing* various other compounds than those already considered, as

"8. In deoxidizing sugar, &c., to form animal fat, and in oxidizing the Carbon of the fat for calorification."

"Having traced one portion of soda formed by the stomach, by a direct channel, through the vessels of the liver into the blood, let us follow the track of the other portion, which enters as an important element of bile, in its chemico-vital uses. In the hepatic secretion, soda forms one of the leading elements, and as soon as bile enters the duodenum, it begins to part with its soda, which combines with albumen, forming a soluble compound in the serum of chyle and blood. The proportion, which this compound of soda and albumen bears to the other ingredients of chyle, goes on increasing in traversing the intestinal canal and lacteal apparatus, until it enters the left subclavian vein; and the soda must hence attract the albumen from the other elements of the chyme.

"It is an admitted physiological fact, that the soda remains the solvent of the albumen, not only in chyle, but in the mass of blood, until the albumen is needed for nutrition, secretion, or other vital uses in the systemic capillaries.

"*Of Muriatic acid as a carrier of nutritive elements.*—Having traced the soda used in bile, through the digestive apparatus, as a solvent and carrier of albumen into the blood, to fit it for nutrition in the systemic capillaries, let us go back to the stomach and follow the free muriatic acid of the gastric juice in its ultimate uses, as another carrier of nutritive elements. Besides the iron and albumen, as important elements of vegetable and animal food, as already noticed, the leading ones are fibrin and casein, which are first formed by vegetables, and then transferred by the chemico-vital action of animals, and appropriated to building up their structure. The more essential elements, hence, of animals and vegetables are those named. It is obvious that all and every atom of nutriment, whether in form of iron, albumen, casein, fibrin, or other nutritive element, must be subjected to, and combined with, the gastric solvent to form the chyme, and disposed of in the manner explained in the function of hæmatosis. Physiology has furnished no evidence that the process of chylification has, at any point of its progress, separated the fibrin, casein, and other nutritive elements from their primary solvent in the stomach ; and we may from this conclude, that when they reach the mass of blood in the left subclavian vein, they continue soluble from their union with muriatic acid. The fibrin or casein so held in solution by muriatic acid, would go the round of the circulation to the systemic capillaries, to which point we have just followed and left its fellow carrier, Soda, still joined to albumen.

" *Nutrition, by re-formation of salt and water dropping albumen and fibrin.*—As the usual affinities or inorganic nature, between the elements of salt and water, had been broken up by the vital chemistry of the stomach when the soda and muriatic acid started as carriers, it is obvious, if the elements of salt and water, which had been separated at the stomach, resume in the systemic capillaries their usual affinities, the soda and muriatic acid, by a double decomposition, would reunite to form salt and water, and drop their albumen and fibrin, as molecular solids. This would, obviously,carry and drop the atoms of these essential elements of the animal structure at all points of the organism, to contribute to its growth, and to supply its waste. Now albumen being the animal element of the nervous system, and fibrin of the muscular ; and these two systems being always intermingled in the intimate structures, and combined in the same functions, especially in those of motion, these two essential elements of their growth would be deposited side by side in the nervous and fibrous filaments. The salt and water thus formed, would proceed directly onward in the general mass of blood, carrying with them the refuse atoms displaced by the new, to be discharged by the kidneys and other excretory outlets. It will be perceived that the muriatic acid and soda are, upon this physiological view, mere carriers of the nutritious particles from the stomach to the solids of the tissues ; and that as soon as they have done this, they resume the affinities of inorganic chemistry, form salt and water, and become again carriers of the waste molecules out of the body. This deposition of nutritive elements must be at those points where the systemic capillary arteries terminate in the correspondent veins ; the very points, as before shown, where calorification occurs from the formation of Hydrate of Carbon."

"The muriatic acid (HCl) of the soluble fibrin and the soda (NaO) of the soluble albumen react on each other, and, depositing fibrin (Fn) and albumen (An) for NUTRITION, form common salt (NaCl) and evolve Oxygen (O) and Hydrogen (H), the very elements of water (HO), which are required to convert the Carbon (C) into Hydrate of Carbon (CHO). (It will be remembered that water was assumed *hypothetically* in § 63.) This answers the reserved and last question, 'Whence the elements of water to form the Hydrate of Carbon ?'

" We have now shown how are united by chemico-vital union, all the important functions of animal life, how each is reciprocally dependent upon every and all others, and how all are again balanced in one harmonious series of vital affinities by the function of innervation."

The concluding chapter is taken up with certain " Physiological and Pathological Influences," as a chemical explanation of coagulation ; probable function of the mesenteric glands ; how sudden death occurs from air entering the jugular vein ; discussion of the question whether there is free carbonic acid in the blood; explanation of the cause of increased heat in fever; how animal heat serves as a reserve of fuel for calorification; fœtal physiology; the liver principally an organ of hematosis; answer to the objection that carbonic acid is evolved in the respiration of hydrogen and nitrogen; analogies and differences between animal and vegetable digestion and nutrition; formation of hydrate of carbon in vegetables, &c. With these extracts, we commend the work to all those who take an interest in animal chemistry, as one that will richly repay for the time spent in its perusal.

Art. XI.—*A Historical, Critical, and Therapeutical Analysis of the Principal Mineral Fountains at Saratoga Springs; together with general directions for their use.* By R. L. Allen, M.D. Resident and Consulting Physician. 18mo., pp. 71. Saratoga, 1844.

This is a very judicious and useful manual for invalids visiting Saratoga. The author is a highly respectable practitioner, and formerly an associate in business with the late and much lamented Dr. Steel, a gentleman of distinguished professional attainments, and many social virtues.

It appears that these celebrated waters were unknown to the whites, until the year 1767.

> "During this year," says the author, "Sir William Johnson, of revolutionary memory, became a subject of disease, and a participator in pure savage hospitality and skill in the remedial use of the water. Being beyond the reach of common means of relief, and unable to relieve himself, he applied to his red friends for council and assistance. They advised the water of the High Rock spring, as the means within their reach and knowledge, best calculated to furnish the required aid. And as was customary with them, they carried out their precepts in their practice. They placed him upon a litter, and bore him upon their shoulders from Johnstown, Montgomery county, via Ballston lake, to the High Rock fountain—thereby giving the very best evidence in their power, of their knowledge of, and confidence in the prescription which they had made their white friend. And there at the fountain head, they administered to him the sparkling water from the Rock, to his perfect relief and cure. (Steel's Analysis.)
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> "From Johnson the knowledge of his cure was communicated to all the surrounding settlements of whites; who in turn visited the spring and used it as a remedial agent with corresponding success. From the time of Johnson's celebrated visit, these springs have been annually visited by the wise, the curious, the diseased, and the fashionable—every year increasing the number of strangers above that which preceded it—until it has become one of the most celebrated and fashionable watering places on the globe.
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> "During the first quarter of a century after the discovery of these waters by the whites, it is true, they were known to differ very essentially from the common water of the country. Their cathartic and diuretic effects had been repeatedly realized, personal experience had often tested their remedial agencies; and as by one voice, all who had known them acknowledged their great therapeutical powers. But why they exerted their sanative influences over their diseased organs, and gave them health for disease, buoyancy of spirits for dejection of mind, vigor for debility, they knew just as little as they did about the pathological state present in the cases which were cured, or failed of relief when the water had been used. But as soon as they began to be prescribed by the regular physi-

cians, it became obligatory on them to examine thoroughly into their chemical composition, and the grade and kind of diseases applicable to their administration.

"The first advance of this kind which was made, was by Samuel L. Mitchill of New York, who demonstrated the existence of carbonic acid as a constituent of these mineral waters. This demonstration was made in 1787. (Steel's Analysis, p. 40.) Six years subsequent to this discovery, Valentine Seaman, of New York city, a gentleman of high professional attainments and great worth, confirmed the experiment of Mitchill, and proved in addition the existence of carbonate of lime, magnesia, soda, iron, and chloride of sodium, and published a small work treating of the mineral waters of Ballston and Saratoga.*

"Some twenty-three years subsequent to Seaman's publication, William Mead of Philadelphia re-analyzed these waters, and also published a work on the same.

"In 1817, John H. Steel analyzed the waters of Ballston and Saratoga, and discovered the presence of Iodine. He also published the results of his analysis, which was an able work, and caused the Doctor great labor; but by so doing he rendered the public an essential service. About the same time Dr. Usher of Hartford also discovered the existence of Iodine in these waters, and published the discovery in the American Journal, No. 1, Vol. 16.

"This substance was and still is considered as a most happy constituent of the waters, and accounts for remedial effects produced by their use, which previously could not be explained.

"In 1830, A. A. Hays of New-Haven proved the existence of Potash and Bromine in the water of Congress spring."

The Mineral Waters of Saratoga are found, on analysis, to contain chloride of sodium, carbonate of soda, hydriodate of soda, carbonate of lime, sulphate of lime, carbonate of magnesia, sulphate of magnesia, carbonate of iron, bromide of potash, and sulphur: and in a gaseous state, carbonic acid and sulphuretted hydrogen.

As Dr. Allen has had much experience in the use of the Saratoga waters, we cannot better conclude this notice than by giving his remarks on their therapeutical application.

"*Depuration.*—As a depurating remedy in cases of long standing debility, and depraved general health, I know of no other remedial agent, either simple or compound, which can be compared with these mineral waters, if judiciously used and persevered in.

"As a cathartic, it is pleasant to the taste, grateful to the stomach, efficient as an evacuant, and leaves the alimentary canal stronger and its functions more vigorous.

"Patients whose digestive organs have been impaired by disease, enfeebled by excess, or exhausted by the toil of accumulated years, find in them an agent which will relieve the organs, without first increasing the existing debility. When taken in the morning upon an empty stomach, in a potation from a half pint to two pints, a full and copious dejection soon takes place, unloading the whole length of the digestive tube of the remnants of the previous day's *ingesta*, which is of no further use to the system, but on the contrary, may be a source of much harm. This free evacuation is copious and without pain, leaves the digestive tube at perfect freedom to exert its digestive and assimilating powers on the next portion of food presented to them. And although the dejections are free and in many instances most copious, yet no languor or debility is experienced by the patient, but on the contrary, his appetite is increased for the next meal—even the digestive functions are greatly enhanced—the power of assimilation is increased—the ability of nutrition augmented—and additional strength is imparted to the body, and new and increased vigor to the mind.

"As a diuretic, it is no less happy in its results, in cases proper for its use, than as a cathartic. For its action on the kidneys and the general renal secretions is prompt, certain, uniform, and efficient, but must be differently administered when diuretic effects are to be obtained, the quantity taken at a time should be less, and repeated at shorter intervals, and if possible, drank fresh from the fountain head.

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* Valentine Seaman's Analysis of Ballston and Saratoga mineral waters.

"As a diaphoretic, they are equally successful as a depurating agent. And very many cutaneous diseases find ready relief from an alterative course of them. In the cases which have resorted here for relief, and came under my personal observation, a very large proportion of them have had an exceedingly bad functional state of this large and important organ. And oftener than otherwise, if there had been any fault or error committed by their medical adviser at home, it had been in not sufficiently regarding this great depurating organ. The bowels would have been purged—the functions of the kidneys inquired after, but those of the skin would never have been thought of either by the patient or his physician; and the skin would be found neglected, sometimes even to the expense of ordinary cleanliness.

"*Bathing.*—The importance of a judicious external application of these waters, has been in my opinion much underrated by a large proportion of invalids who annually resort to these mineral fountains in pursuit of health.

"And I also think this fault is not to be limited to invalids who visit these Springs for relief from diseases which refuse to yield to the ordinary remedial agents, but it is a national error. It is first too much neglected in the nursery—and this negligence but too often increases with the ripe years of our American born and educated citizens. And a change in this is most earnestly demanded, and must be brought about, or we shall become in a few generations a nation of pallid invalids, with such irritable skins, from a want of bathing and proper exercise in the open air, that a change even of the electrical and humid state of the atmosphere, will throw us by neighborhoods into partial states of disease. And the noble sons and fair daughters of America will be but as so many weather-glasses, being quite as frail, equally excitable, and as changeable as a barometer.

"In some of the instances which have come under my directions and observation in the application of these mineral waters, I have thought the relief obtained was to be attributed rather to the judicious bathing daily indulged in, than to the water which was drank. But in a large proportion of the cases, the relief obtained was to be attributed to the mutual action of the waters internally administered and externally applied.

"The effect of a cold bath in removing constipation of the bowels, is in many instances most prompt; and those who are not in the habit of watching their effects would be very much disappointed at the results of such an application in the treatment of such cases of torpor of the first passages.

"I have known most copious stools produced by it alone, when the patient would require large doses of purgatives to produce an equal effect. And the results were not casual, but would be uniformly the same, if similarly applied, and the pathological state of the system remaining the same.

"The warm bath is equally proper in a relaxed state of the first passages, but in some chronic cases of this kind it ought not to be admitted, but a substitution of a tepid or a cold one should be adopted in its stead.

"*Bilious Diseases.*—In those cases where the liver is making bile improper in quality or quantity, and without organic lesion being present in the viscus, these waters used as a cathartic in the morning, with such assistants over night as the case may require, produce the most happy results. But if a higher grade of arterial action is present, or if organic lesion has taken place with the organ, and an anasarcous state of extremities has supervened, then they are injurious without an exception. But it must be remembered, that extensive swellings may take place from a great variety of debilitating agents other than organic disease, and which may be relieved with great facility by a proper and timely use of these mineral waters.

"In an inactive state of the bowels, when an evacuation is not obtained save at the expense of much time, or large doses of active medicines, with clay-colored stools and a dry and rough state of the skin, the cathartic mineral waters taken in the morning, an hour or two before breakfast, in proper quantities for physic, and smaller portions through the day to operate on the kidneys and the skin, will in a few days regulate the system most perfectly.

"But in bilious difficulties of the above description, much relief may be obtained by proper and timely bathing. These baths should be of mineral water generally, and used in the form of a shower bath about ten o'clock in the morning.

"After the bath has been indulged in, it is important that the patient should be carefully wiped dry, and the friction on the surface continued with a coarse towel or flesh brush, until the skin is warm and generally flushed.

"This thorough rubbing should in most instances be done by the patient himself, for the circulation is thereby more effectually thrown upon the surface, and the congestion of the internal organs consequently more promptly relieved.

"In some of the above cases, I have known such an active state of the kidneys or skin to exist, that almost all the fluids of every description which the system could receive, would be passed directly from the body by the agency of the renal organs on the exudents of the skin. And notwithstanding large quantities of mineral water had been taken by the patient, yet his constipation would continue to be more and more difficult to overcome, the inconvenience of a torpidity of the bowels so much aggravated, and the long and unpleasant train of morbid actions incident to a diabetic state of the system, or profuse sweats superadded to his former sufferings by the very course resorted to for relief.

"This state of the system is easily overcome by proper medicine taken over night, followed in the morning by cathartic mineral water, together with bathing and friction of the skin.

"Another state of constipation with biliary derangements I have frequently seen here, which cannot be overcome by mineral water alone, or by scarcely any other physic, without first evacuating the adhesive mucous contents of the stomach, by a proper emetic. This adhesive slime seems to be so redundant, that the stomach is unaffected by cathartic remedies; but after this has been effectually dislodged, then small quantities of Congress water, if taken in the morning, and upon an empty stomach, will produce a full, free, and copious effect.

"Other cases, again, may have a little general excitement, which will be so much enhanced by the carbonic acid, that it becomes necessary to expel it from the water before it is taken. This is usually accomplished by setting the water in the lodging room over night, or by immersing it in warm water in the morning just before using it, which will ensure its cathartic effects by expelling the carbonic gas.

"*Alterative use of the water.*—When the cathartic effects are obtained from the use of the water, many people seem to think the work is completed, and they of course demand to be well—when, in truth, they have taken but one step out of the many towards a permanent cure. They have unloaded the first passage of ill prepared, feculent matter, by an antiseptic physic. But this has passed through the system by the bowels, and scarcely any of it has entered into the system proper, or passed the secretive organs and become a part of the circulating fluids of the body, or associated with the nourishment of the same. This is only to be done by small potations taken repeatedly through the day: and in most instances these draughts should be taken from the more tonic fountains of the village, as the Columbian, Hamilton, or High Rock springs.

"The quantity of water taken in this way, should be small at first, say a quarter of a tumbler to delicate females, and others in proportion, and repeated every hour or two throughout the day, and gradually increased in quantity until the maximum amount the system can dispose of properly, has been taken by the patient.

"In this way an alterative course is obtained, which may change the whole secretions of the body, a very important point to be obtained in most aberrations from health.

"These small alterative potations should be drank at the fountain when the water is as perfect as it is possible to obtain it.

"*Gravel.*—In gravelly states of the bladder, many well attested cases might be produced where the patients have been completely cured by the waters from these mineral fountains.

"They should be drank in such quantities, and with such repetition as will ensure a copious diuretic effect, when large quantities of sand and frequently small calculi will be discharged with the urine. This effect is frequently much assisted by the use of the warm bath, which, in a large part of the cases, will increase the ultimate discharge from the kidneys.

"And even in cases where there was evidently organic lesion of the bladder present, the free use of mineral water seemed to furnish more relief than any other remedy which had been used, although the patient had been subject to the directions of our first medical men in the large cities.

"*Chronic Rheumatism.*—This formidable disease has been repeatedly cured by a liberal use of the water taken as a cathartic in the morning, as an alterative through the day, and externally applied in the form of a bath, cold and fresh from one of the mineral fountains.

"*Phagedenic Sores.*—In ill conditioned ulcers of the above character these mineral waters have been found invaluable; and in most instances need to be both internally and externally used. The external application should be generally and locally prescribed—when, in a short time, the ulcers will change their whole aspect and begin to heal.

"*Cutaneous diseases.*—This class of diseases is very numerous, and in many cases much complication attends their pathology. But those diseased states of the skin depending upon morbid secretions, or a local habitation in the skin itself, derive signal benefit by a proper course of the drinking of, and bathing in these waters.

"*Scrofula.*—This strumous state of the system finds great relief from the use of the mineral waters of Saratoga.

"Those laboring under it, should drink the water in the morning as an aperient—take it as alterative in conjunction with alterative doses of iodine or bromine through the day, and bathe in it regularly every day, unless some particular reason for the contrary should be present.

"In these cases, the external application is highly important. The bromine and iodine exist in sufficient quantities in these waters, to sensibly affect such cases, when applied generally to the surface: and even amount to a similar degree of strength with the baths of this character which have been used with so much success in the south of Europe.

"The temperature and repetition of the baths in these difficulties must depend upon the general health of the patient, the state of the weather, and the season of the year when they are used.

"*Chlorosis.*—This disease and many other kindred difficulties, are much benefited by a judicious course of drinking and bathing in these mineral waters.

"But I have known some patients much injured by attempting to practise a course of diet, medicine and exercise, according to some popular directions which may be very proper in other cases, but not necessary in all—as for instance, early rising, long walks, deep draughts of cold water: and all this is to be accomplished before breakfast by females, who for years have not risen in the morning until the breakfast hour; never had been accustomed to walk any considerable distance at any time of the twenty-four hours; and whose stomachs are extremely irritable, and their general health feeble. For such patients to leave a warm bed, subject themselves to the difference of temperature between it and the morning air about the fountain, and drench their stomachs with large potations of cold mineral water, then return to the hotel, and add to all the rest a full meal of stimulating food, because this happens to be endured without positive and immediate sickness by some Amazon belle! By these remarks, I am not to be understood as being opposed to early rising, exercising in the morning air, and drinking the water at the several fountains; but I mean to be understood, as saying, that every person who visits these fountains in pursuit of health, cannot rise at the same hour in the morning; take a walk of the same length; drink the same number of tumblers of cold water; and eat the same kinds of food, and to the same extent, with precisely the same results. I mean that every person's exercise should be measured by his ability to perform: his food, by his power to digest and assimilate: his rising in the morning, and the amount of water drank, where, and at what temperature, should depend upon the effects produced, rather than the popular opinion of some very good, wise, and fashionable old matron, who knows all about the water, because she has been here before with a very fashionable party, and drank it by rule; left her home in good health, but returned to it again sick and diseased.

"*Phthisis.*—Much has been said of late, about the beneficial effects of these waters in this disease. But I have yet to learn that they have ever been of use in such cases. And with those who have thought and written to the contrary, I would beg most respectfully to differ. I have never seen a case, where I thought there was even a degree of palliation produced by a use of the water, but on the contrary, always injurious, increasing all the alarming symptoms of this most formidable disease.

"I have also known many coughs and pains about the pectoral regions, most promptly and effectually cured by drinking these mineral waters; but the cough and pectoral pains were dependent upon a diseased action in one or more of the digestive and assimilating organs, and not on that pathological state of the lungs which produces phthisis pulmonalis.

"My advice to all who are laboring under the corroding influence of this disease, is not to drink of any one of our mineral fountains recently or remotely discovered and brought into notice."

ART. XII.—*Letters on Mesmerism.* By Miss HARRIET MARTINEAU. New York: Harper & Brothers. 1845. 8vo., pp. 27.

As a literary performance, we have, as medical journalists, nothing to do with this pamphlet; but so far as it claims to present the history of a medical case, and the treatment which resulted in a restoration to health, we are interested, and we, therefore, believe it to be a duty to devote some space to it.

Those who became acquainted with Miss Martineau, during her late visit to this country, know that she is a female of great talent, and more than ordinary curiosity; combining, with many of the better feminine qualities, as a vivid imagination, some of those attributes of mind which are generally supposed to attach exclusively to the male sex. We can easily imagine that we see her now, with her ear-trumpet, anxiously listening to some novel information; her countenance brightening up, as she becomes engaged in some discussion on slavery, or political economy, and growing eloquent as she expatiates on manners, morals, and religion; and we are delighted to reflect that this inquisitive and amiable woman, after some months or years of suffering, has again been restored to health, we care not *how*, but *that* is the very point to which we ask the reader's attention.

It appears that Miss M. was under the professional charge of Dr. Greenhaw, a very respectable practitioner of Newcastle, who, after the publication of Miss M.'s letters in the Athenæum, felt called upon, in self-defence, to give a full history of the case, with the treatment, &c. Dr. G.'s statement is copied into the Dublin Medical Press, of January

15th, and prefaced by the following very judicious remarks of the editor, which we extract as a sample of the opinions held by the British medical periodicals, in relation to this "remarkable case."

> "It is painful to be obliged, in the discharge of our editorial duties, to minister to a morbid love of unenviable notoriety by exposing to public gaze the personal infirmities of any individual, but more especially is it so where that individual is a female and a lady of education. Our apology for publishing these details, even in a medical journal, knowing that by so doing we submit them more or less to public inspection, is, our finding them already in print, for most assuredly if they had been tendered to us in the first instance, we should have declined giving them a place in our columns. That Miss MARTINEAU's magnanimous resolve, to sacrifice 'all personal considerations to the social duty of imparting the facts' of her case, should have so far stifled all womanly feeling of shame, as to induce her to give her 'entire concurrence' to the publication of these most indelicate particulars, is not, perhaps, surprising; but it is amazing that all our former feelings of delicacy and propriety should be so completely prostrated that in the open face of day such impurities should be made the subject of prurient curiosity. But the fact is, that we are every day approaching nearer and nearer to the springs and sources of quackery in all its ramifications. Vanity, sheer vanity, egotism, and craving after notoriety, is more at the bottom of it than people think. Your consequential, ostentatious candidate for the attentions of the circle in which he moves, delights to assert his importance, and display his judgment by joining the discovery of a cure, or the patronizing of a charlatan; and the restless spoiled child of indulgence has full scope for the gratification of caprices, in flying from one quack to another in pursuit of relief from real or imaginary ailments. This poor lady has been so completely inflated by the breath of flattery, and so thoroughly persuaded into a belief of her being a most wonderful personage, that she thinks it quite a duty to tell the world how she feels, and how matters go on in her inside. So every fussy valetudinarian gratifies his self-love by recounting his deeds of doctoring, and boasting of his sagacity and discrimination in the discovery of a miraculous cure; while at the same time he enjoys the satisfaction of displaying his ability to incur expense and to command resources and luxuries beyond the reach of less favored mortals. In fact, this species of quack-fancier, whether male or female, is the same creature that we find flying about after all other kinds of novelties, and seeking by change of scene and new excitements to sustain the artificial condition of mind and body which he finds essential to his existence."—*Dublin Medical Press, Jan.* 15.

We shall now quote so much from Miss Martineau's "*Letters*" as will give the reader a pretty correct idea of her own view of her case; some parts of which will doubtless remind the reader, as they have us, of some of the details contained in that remarkable work, "*Confessions of an English Opium-Eater.*"

MISS MARTINEAU'S STATEMENT.

> "It will be sufficient to explain briefly, in order to render my story intelligible, that the internal disease, under which I have suffered, appears to have been coming on for many years; and that after warnings of failing health, which I carelessly overlooked, I broke down, while travelling abroad, in June, 1839; that I sank lower and lower for three years after my return, and remained nearly stationary for two more, preceding last June. During these five years, I never felt wholly at ease for one single hour. I seldom had severe pain; but never entire comfort. A besetting sickness, almost disabling me from taking food for two years, brought me very low; and, together with other evils, it confined me to a condition of almost entire stillness—to a life passed between my bed and my sofa. It was not till after many attempts at gentle exercise that my friends agreed with me that the cost was too great for any advantage gained: and

at length it was clear that even going down one flight of stairs was imprudent. From that time, I lay still; and by means of this undisturbed quiet, and such an increase of opiates as kept down my most urgent discomforts, I passed the last two years with less suffering than the three preceding. There was, however, no favorable change in the disease. Everything was done for me that the best medical skill and science could suggest, and the most indefatigable humanity and family affection devise: but nothing could prevail beyond mere alleviation. My dependence on opiates was desperate. My kind and vigilant medical friend—the most sanguine man I know, and the most bent upon keeping his patients hopeful—avowed to me last Christmas, and twice afterwards, that he found himself compelled to give up all hope of affecting the disease—of doing more than keeping me up, in collateral respects, to the highest practicable point. This was no surprise to me; for when any specific medicine is taken for above two years without affecting the disease, there is no more ground for hope in reason than in feeling. In June last, I suffered more than usual, and new measures of alleviation were resorted to. As to all the essential points of the disease, I was never lower than immediately before I made trial of Mesmerism.

"If, at any time during my illness, I had been asked, with serious purpose, whether I believed there was no resource for me, I should have replied that Mesmerism might perhaps give me partial relief. I thought it right—and still think it was right—to wear out all other means first."

"It never presented itself to me as possible that disease so long and deeply fixed could be removed; and I was perfectly sincere in saying that the utmost I looked for was release from my miserable dependence on opiates. Deep as are my obligations to my faithful and skilful medical friend, for a long course of humane effort on his part, no one kindness of his has touched me so sensibly as the grace with which he met my desire to try a means of which he had no knowledge or opinion, and himself brought over the Mesmerist under whom the first trial of my susceptibility was made.

"Last winter, I wrote to two friends in London, telling them of my desire to try Mesmerism, and entreating them to be on the watch to let me know if any one came this way of whose aid I might avail myself. They watched for me, and one made it a business to gain all the information she could on my behalf; but nothing was actually done, or seemed likely to be done, when in June a sudden opening for the experiment was made, and without any effort of my own, and on the 22d I found myself, for the first time, under the hands of a Mesmerist."

"At the end of four months I was, as far as my own feelings could be any warrant, quite well. My mesmerist and I are not so precipitate as to conclude my disease yet extirpated, and my health established beyond all danger of relapse; because time only can prove such facts. We have not yet discontinued the mesmeric treatment, and I have not re-entered upon the hurry and bustle of the world. The case is thus not complete enough for a professional statement. But, as I am aware of no ailment, and am restored to the full enjoyment of active days and nights of rest, to the full use of my powers of body and mind, and as many invalids, still languishing in such illness as I have recovered from, are looking to me for guidance in the pursuit of health by the same means, I think it right not to delay giving a precise statement of my own mesmeric experience, and of my observation of some different manifestations in the instance of another patient in the same house. A further reason against delay is, that it would be a pity to omit the record of some of the fresh feelings and immature ideas which attend an early experience of mesmeric influence, and which it may be an aid and comfort to novices to recognize from my record. And again, as there is no saying, in regard to a subject so obscure, what is trivial and what is not, the fullest detail is likely to be the wisest, and the earlier the narrative the fuller; while better knowledge will teach us hereafter what are the non-essentials that may be dismissed.

"On Saturday, June 22d, Mr. Spencer Hall and my medical friend came, as arranged, at my worst hour of the day, between the expiration of one opiate and the taking of another. By an accident the gentlemen were rather in a hurry—a circumstance unfavorable to a first experiment. But result enough was obtained to encourage a further trial, though it was of a nature entirely unanticipated by me. I had no other idea than that I should either drop asleep or feel nothing. I did not drop asleep, and I did feel something very strange.

"Various passes were tried by Mr. Hall; the first of those that appeared effectual, and the most so for some time after, were passes over the head, made from behind—passes from the forehead to the back of the head and a little way down the spine. A very short time after these were tried, and twenty minutes from the beginning of the *séance*, I became sensible of an extraordinary appearance, most unexpected, and wholly unlike anything I had ever conceived of. Something seemed to diffuse itself through the atmosphere—not like smoke, nor steam, nor haze—but most like a clear twilight, closing in from the windows and down from the ceiling, and in which one object after another melted away, till scarcely anything was left visible before my wide-opened eyes. First, the outlines of all objects were blurred; then a bust, standing on a pedestal in a strong light, melted quite away; then the opposite bust, then the table with its gay cover, then the floor, and the ceiling, till one small picture, high on the opposite wall, only remained visible—like a patch of phosphoric light. I feared to move my eyes, lest the singular appearance should vanish; and I cried out, 'O! deepen it! deepen it!' supposing this the precursor of the sleep. It could not be deepened, however; and when I glanced aside from the luminous point, I found that I need not fear the return of objects to their ordinary appearance while the passes were continued. The busts re-appeared, ghost-like, in the dim atmosphere, like faint shadows, except that their outlines, and the parts in the highest relief, burned with the same phosphoric light. The features of one, an Isis with bent head, seemed to be illumined by a fire on the floor, though this bust has its back to the windows. Wherever I glanced, all outlines were dressed in this beautiful light; and so they have been, at every *séance*, without exception, to this day; though the appearance has rather given way to drowsiness since I left off opiates entirely. This appearance continued during the remaining twenty minutes before the gentlemen were obliged to leave me. The other effects produced were, first, heat, oppression and sickness, and, for a few hours after, disordered stomach; followed, in the course of the evening, by a feeling of lightness and relief, in which I thought I could hardly be mistaken.

"Nothing is to me more unquestionable and more striking about this influence than the absence of all reaction. Its highest exhilaration is followed, not by depression or exhaustion, but by a further renovation. From the first hour to the present, I have never fallen back a single step. Every point gained has been steadily held. Improved composure of nerve and spirits has followed upon every mesmeric exhilaration. I have been spared all the weaknesses of convalescence, and have been carried through all the usually formidable phases of return from deep disease to health with a steadiness and tranquillity astonishing to all witnesses. At this time, before venturing to speak of my health as established, I believe myself more firm in nerve, more calm and steady in mind and spirits, than at any time of my life before. So much, in consideration of the natural and common fear of the mesmeric influence as pernicious excitement—as a kind of intoxication.

"I next procured, for guidance, Deleuze's 'Instruction Pratique sur le Magnétisme Animal.' Out of this I directed my maid: and for some weeks we went on pretty well. Finding my appetite and digestion sufficiently improved, I left off tonics, and also the medicine which I had taken for two years and four months, in obedience to my doctor's hope of affecting the disease,—though the eminent physician who saw me before that time declared that he had 'tried it in an infinite number of such cases, and never knew it avail.' I never felt the want of these medicines, nor others which I afterwards discontinued. From the first week in August, I took no medicines but opiates; and these I was gradually reducing. These particulars I mention to show how early in the experiment Mesmerism became my sole reliance."

"From the middle of August (after I had discontinued all medicines but opiates), the departure of the worst pains and oppressions of my disease made me suspect that the complaint itself,—the incurable, hopeless disease of so many years,—was reached; and now I first began to glance towards the thought of recovery. In two or three weeks more, it became certain that I was not deceived;—and the radical amendment has since gone on, without intermission.

"Another thing, however, was also becoming clear: that more aid was necessary. My maid did for me whatever, under my own instruction, good-will and affection could do. But the patience and strenuous purpose required in a case of such long and deep-seated disease can only be looked for in an educated person, so familiar with the practice of Mesmerism as to be able to keep a steady eye on the end, through all delays and doubtful incidents. And it is also important, if not necessary, that the predominance of will should be in the Mesmerist, not the patient. The offices of an untrained servant may avail perfectly in a short case,—for the removal of sudden pain, or a brief illness; but, from the subordination being in the wrong party, we found ourselves coming to a stand.

"This difficulty was abolished by the kindness and sagacity of Mr. Atkinson, who had been my adviser throughout. He explained my position to a friend of his—a lady, the widow of a clergyman, deeply and practically interested in Mesmerism, possessed of great Mesmeric power, and of those high qualities of mind and heart which fortify and sanctify its influence. In pure zeal and benevolence, this lady came to me, and has been with me ever since. When I found myself able to repose on the knowledge and power (mental and moral) of my Mesmerist, the last impediments to my progress were cleared away, and I improved accordingly.

"Under her hands the visual appearances and other immediate sensations were much the same as before; but the experience of recovery was more rapid. I can describe it only by saying, that I felt as if my life were fed from day to day. The vital force infused or induced was as clear and certain as the strength given by food to those who are faint from hunger. I am careful to avoid theorizing at present on a subject which has not yet furnished me with a sufficiency of facts; but it can hardly be called theorizing to say (while silent as to the nature of the agency) that the principle of life itself—that principle which is antagonistic to disease—appears to be fortified by the mesmeric influence; and thus far we may account for Mesmerism being no specific, but successful through the widest range of diseases that are not hereditary, and have not caused disorganization. No mistake about Mesmerism is more prevalent than the supposition that it can avail only in nervous diseases. The numerous cases recorded of cure of rheumatism, dropsy, cancer, and the whole class of tumors,—cases as distinct, and almost as numerous as those of cure of paralysis, epilepsy, and other diseases of the brain and nerves, must make any inquirer cautious of limiting his anticipations and experiments by any theory of exclusive action on the nervous system. Whether Mesmerism, and, indeed, any influence whatever, acts exclusively through the nervous system, is another question.

"A few days after the arrival of my kind Mesmerist, I had my foot on the grass for the first time for four years and a half. I went down to the little garden under my windows. I never before was in the open air, after an illness, of merely a week or two, without feeling more or less overpowered; but now, under the open sky, after four years and a half spent between bed and a sofa, I felt no faintness, exhaustion, or nervousness of any kind. I was somewhat haunted for a day or two by the stalks of the grass, which I had not seen growing for so long (for, well supplied as I had been with flowers, rich and rare, I had seen no grass, except from my windows); but at the time, I was as self-possessed as any walker in the place. In a day or two, I walked round the garden, then down the lane, then to the haven, and so on, till now, in two months, five miles are no fatigue to me. At first, the evidences of the extent of the disease were so clear as to make me think that I had never before fully understood how ill I had been. They disappeared one by one; and now I feel nothing of them.

"The same fortifying influence carried me through the greatest effort of all,—

the final severance from opiates. What that struggle is, can be conceived only by those who have experienced, or watched it with solicitude in a case of desperate dependence on them for years. No previous reduction can bridge over the chasm which separates an opiated from the natural state. I see in my own experience a consoling promise for the diseased, and also for the intemperate, who may desire to regain a natural condition, but might fail through bodily suffering. Where the mesmeric sleep can be induced, the transition may be made comparatively easy. It appears, however, that opiates are a great hindrance to the production of sleep; but even so, the mesmeric influence is an inestimable help, as I can testify. I gave all my opiates to my Mesmerist, desiring her not to let me have any on any entreaty; and during the day I scarcely felt the want of them. Her mesmerizing kept me up; and, much more, it intercepted the distress,—obviated the accumulation of miseries under which the unaided sufferer is apt to sink. It enabled me to encounter every night afresh,—acting as it does in cases of insanity, where it is all-important to suspend the peculiar irritation—to banish the haunting idea. What further aid I derived in this last struggle from Mesmerism in another form, I shall mention when I detail the other case with which my own became implicated, and in which, to myself at least, he interest of my own has completely merged.

"It will be supposed that, during the whole experiment, I longed to enjoy the mesmeric sleep, and was on the watch for some of the wonders which I knew to be common. The sleep never came, and except the great marvel of restored health, I have experienced less of the wonders than I have observed in another. Some curious particulars are, however, worth noting."

We have thus quoted perhaps sufficient from Miss M.'s statement, to enable the reader to form a sufficiently correct idea of the facts in the case. Whether the effects, above related, are to be attributed to the influence of a vivid imagination, and the invigorating power of strong faith and hope, or to some invisible *opus operatum*, as the divines have it, or to the medical treatment, aided by the co-operating efforts of nature, our readers will be better able to judge, after reading Dr. Greenhow's account of the case, which is as follows:—

"In a letter from Venice, dated June 14th, 1839, Miss H. M., ætat. 27, first communicated to me her early feelings of indisposition. During the preceding year she had been sensible of a 'great failure of nerve and spirits, and of strength.' Frequently she experienced sharp pain in the uterine region. The catamenia became more frequent, occurring every two or three weeks; and a very irritating discharge, of a brown or yellowish color, took place in the intervals.

"The irregular uterine discharges continued, occasionally mixed with clotted blood, and she suffered from many distressing nervous symptoms, evidently arising from uterine irritation; 'inability to stand or walk, aching and weariness of the back, extending down the legs to the heels;' 'tenderness and pain, on pressure in the left groin, extending by the hip to the back. The spirits became much depressed, and the power of enjoyment was gone.' At the same time 'a *membranous substance*, like the end of a little finger,' was discovered projecting from the os uteri.

"This substance is described in the following terms, in a letter to Dr. Nardo, of Venice, who was consulted on the occasion, by a friend who accompanied Miss H. M. on her journey. 'Twice there has been a discharge similar in color and substance to blood. Two days ago it was found, that from the same passage (vagina) was protruding the extremity of a solid substance, totally insensible, of a reddish-brown color, in form resembling the end of a bullock's tongue, with a decided edge or point—it can be pushed back without difficulty or pain, but it falls again.' Dr. Nardo, who had no opportunity of actual examination, conjectured either prolapsus uteri or a polypous tumor of a fibrous nature, to be the occasion of these appearances; and recommended the careful avoidance of violent motion, and all that was found to increase indisposition.

"The following extract from a letter dated Lucerne, July 6, 1839, seems to fix the period when one character of the complaint, which will be presently noticed more particularly (*retroversion of the uterus*), took place:—'I cannot walk without injury, as I said, and keep my feet laid up, and my knees somewhat raised, as the easiest posture. I began to use the syringe, as you and Dr. Nardo recommended: it was a great relief, but in *three days* there was *no room for it*, and on this account I have never been able to use it since. I discontinued the sponge, finding it irritating, as you say, and it is not now *necessary*.'

"The use of the sponge as a pessary, and the syringe for injecting tepid water, or other fluid, into the vagina, is referred to in this passage, and needs no comment; it is the occupation of the cavity of the vagina by the enlarged and retroverted uterus, which I wish to be held in view, as throwing some light on the subsequent history of the case.

"In the end of July, 1839, Miss H. M. arrived in Newcastle, and placed herself under my care. She was then suffering from the various morbid nervous sensations already described; and though she continued to take moderate walking exercise, it was attended with great discomfort and inconvenience. There was no difficulty in referring the whole train of symptoms to some organic or functional derangement of the uterus; and an examination was soon instituted to ascertain its proper character.

"The uterus was found large, retroverted, and fixed low down in the vagina, the os and cervix uteri occupying the anterior part of the cavity, and the body and fundus of the organ passing horizontally backwards, till the latter approached the sacrum. The enlarged uterus thus occupying the antero-posterior diameter of the pelvis, pressed, respectively, against the urethra and neck of the bladder and the lower part of the rectum; and the embarrassment occasioned by this pressure produced corresponding symptoms, which were often the occasion of great uneasiness and inconvenience. While the fundus uteri extended backwards towards the sacrum, the cervix was bent downwards behind the pubes, nearly at a right angle, and hanging from the lip was a small polypus, which was soon removed; but without any alleviation of the symptoms. I was assured by my patient that the projecting body, which showed itself at Venice, was different from, and much larger than, this small polypus; and though the os uteri was not dilatable with the finger, and from its preternatural position, was in a very unfavorable condition for the exclusion of any body contained within the uterus, I was for some time led to hope that another and larger polypus might again make its appearance. Notwithstanding the use of suitable measures—warm baths and ergot of rye—to promote this object, my expectations were disappointed; and the treatment of the case soon resolved itself into the employment of appropriate palliatives.

"The tenderness in the left groin was somewhat relieved by leeches. The increasing difficulty of bearing exercise, however moderate, soon rendered rest absolutely necessary; and the feelings of nervous discomfort indicated recourse to opiates, from which, though always used in great moderation, much relief was obtained. One of the most distressing symptoms which subsequently supervened, was an oppressive sickness, frequently amounting to retching; and much difficulty in micturition and in emptying the bowels was occasioned by the pressure of the uterine tumor. From the same cause arose the distressing pains down the lower extremities, frequently extending to the heels. The abdomen became considerably distended during the progress of these symptoms; but this arose more from a general distension and fullness of the bowels, from flatus and other contents, than the enlargement of the uterus, which could never be felt rising above the brim of the pelvis: though its increased size, doubtless, by pushing the abdominal viscera upwards, tended in some measure to produce a general enlargement of the figure.

"It not unfrequently happened, although, by the use of gentle aperients or emollient injections, a pretty regular action of the bowels was secured, that a gradual accumulation of their contents took place, giving rise to increased distress, which required the use of more active purgatives for its relief. An occasional attack of more acute disease from accidental causes—for example, a large abscess in the throat, or severe gastrodynia (from which Miss M. suffered long and acutely many years ago), was superadded to the ordinary symptoms arising from the local disease, aggravating their intensity, and leaving for a time the feeling of increased debility and inaptitude for physical exertion. The constant and distressing aching in the back rendered it painful to rest upon the sacrum in reclining on the sofa; and some relief was obtained by resting in a prone position. A couch, contrived for this purpose, was found a source of much comfort to the patient.

"So little variation took place in the character of the symptoms, or the pathological condition of the affected organ, as to render needless minute details of continued morbid feelings, or of the treatment suggested for their relief.

"In 1840 I made a statement of the case in writing to Sir Charles M. Clarke, who concurred with me in thinking that rest and palliative treatment, the general health being carefully maintained, could alone be depended upon.

"In September, 1841, Sir Charles M. Clarke having occasion to visit this part of the country, I had an opportunity of availing myself more directly of his opinion.

"After a very careful investigation in the case, Sir Charles gave an opinion verbally, which I was induced afterwards to request him to express in writing. In a note dated September 30th, 1841, he says—'It was my intention to say that I perfectly agreed with you as to the nature of the complaint, that the disease was an enlargement of the BODY of the uterus; that the NECK of that organ was perfectly healthy; that although the majority of these cases of enlargement of the BODY of the uterus did not yield to external applications or to internal remedies, that, nevertheless, the disorder produced mechanical symptoms only, and *did not lead to any fatal result*, to which termination disease of the *neck* of the uterus did lead.

"'Farther, I mentioned that in an instance or two I *had* known such complaints as Miss M.'s subside, and that I would suggest the employment of certain means for this desirable purpose.' The means proposed by Sir Charles M. Clarke was the continued external and iodine ointment.

"To this measure my patient had so decided an objection, that she could not be prevailed upon to carry it into effect. It was on this account that I was induced to propose a course of iodide of iron, which, with few and short intervals, was persevered in till July or August of the present year. Under the use of this medicine the distressing sickness was greatly mitigated, the appetite improved, some morbid feelings were alleviated, and an increased tone of general bodily health, as well as of mental energy, showed itself. The following extract from a note written in September, 1843, will show her opinion of its effects at that time:—'I suppose I owe my much improved comfort mainly to them (the pills of iodide of iron); indeed, it is very great. The pulling and sinking—the mechanical troubles as one may call them—of course continue, but the almost total absence of sickness, and the striking lessening of the "distress" are such a comfort to me!' Occasional, but not very frequent examinations took place into the pathological condition of the affected organ, but no appreciable change could be discovered, except the appearance of a membranous substance at the os uteri, which, generally, scarcely protruded beyond its lips, though occasionally it was described as of larger extent. This was said to resemble the appearance observed at Venice, though of smaller dimensions. This substance evidently proceeded from the interior of the uterus, and had no attachment to the neck, the point of the finger passing round it on all sides. Its appearance naturally gave rise to the renewed supposition that the uterus might contain a preternatural growth of a polypous character, the separation and discharge of which might be effected by time.

"On the 2d of April, 1844, I was first enabled to detect a slight change in the condition of the uterus. The attachment of the fundus was less fixed, and it could be slightly raised from its position. The membranous pendicle described above, and the general position of the organ, remained as on former examinations.

"In the beginning of June, Miss M. suffered much from an attack of indigestion, with disordered and loaded bowels. The symptoms proper to the organic affection, especially the distressing pain in the back, were for a time increased; and while proper means were resorted to for the correction of visceral derangement, a plaster with belladonna was applied to the sacral region, from which but slight relief was obtained. The unwonted symptoms of indisposition had subsided, when, on June 22d, the mesmeric treatment was commenced, of which a full account has been published in the *Athenæum* by Miss M. From this time she ceased to be properly treated under my care, though her accustomed remedies were not yet laid aside. I shall therefore pass over the interval till September 4th, on which day I carefully repeated my examination, and found, as on April 2d, that the posterior connections of the uterus were less fixed than formerly. The retroversion continues, but the fundus, which rests against the rectum and sacrum, feels looser, and admits of being raised to some extent with the finger in vaginam.

"The uterus feels altogether less firm, and more yielding in its substance, and the os uteri is to a certain extent dilatable, yielding to the finger in a slight degree more than formerly. Within, and slightly projecting from the os uteri, can be felt *two* substances, which convey to the finger a sensation as if two lumbrici, of moderate size, hung through the mouth of the uterus. These membranous projecting bodies are said, on pressure, occasionally to exude a reddish discharge. In addition to the knowledge obtained by this examination, Miss M. supplied me with the following reports of herself, at this and several succeeding visits which I made her, previous to the next and final examination into the pathological condition of the uterus, on December 6th. On this day, (September 4th), she informed me that the catamenia, which for many years had taken place at shorter intervals than natural (every two or three weeks), have resumed their natural course. That the breasts have increased in bulk. The pills of iodide of iron, and all aperients, have been discontinued, the bowels having lately acted with ease and regularity. The use of opiates has been greatly diminished by enema, and internally, altogether omitted. The sickness and other gastric inconveniences have ceased; the irritation in the rectum and neck of the bladder are no longer complained of;—quietude and repose have succeeded to restlessness and irritability; and the nervous system has acquired a greatly improved tone.

"11th. Miss M. continues comfortable, with greatly diminished doses of the opiate; other medicines unnecessary. Has this day been in the garden for some time; laid on a sofa cushion.

"21st. Miss M. reports favorably in all respects of herself. Opiate reduced to a very small dose. Yesterday walked round the castle-yard; to-day, the same, with the addition of a walk to the Haven—feels somewhat tired, but no other uneasy effects.

"October 8th. Miss M. informed me that she can now take long walks—to-day, two miles and a half. Has discontinued opiates for five days. At first the nights were bad. Last night she slept well, having taken a small quantity of warm brandy and water. No irritation is now felt at the neck of the bladder. Some pressure still on rectum, but otherwise feels well. Bowels regular without medicine.

"December 6th. Again I made a careful examination into the state of Miss M. The fundus uteri is more disengaged than at the last examination, and admits of being raised somewhat higher. It is certainly *less fixed*, and in this respect has improved at each time of examination since April 2d, when the first degree of improvement was observed. The retroversion continues, the fundus still extending towards the sacrum, while the os uteri approaches the pubes—the organ remains large and firm, and is yet turned back nearly at a right angle from the cervix uteri. The two membranous pendicles remain hanging out of the os uteri, as at the last examination. The health is represented as quite good, and the catamenia as regular—the nervous pains and irritations having all subsided. The person is less; but, as abdominal distension depended principally upon the gaseous and other contents of the intestines, and in a slight degree only on the uterine tumor, it is probable that renewed habits of activity have greatly contributed to restore the symmetry of the person in this respect.

"I have purposely avoided interrupting the narrative of the case by details of the medicines prescribed. But I shall here append the prescriptions employed, except on particular emergencies, during the last three years. A glance at them will suffice to show how erroneous is the supposition entertained by many persons that Miss M. was in the habit of seeking relief in large and unmeasured doses of opium.

1. Anodyne lotion.
℞ Misturæ camphoræ.
Mist. G. Acaciæ, āā ℥ viii.
Tincturæ opii, ʒ vii. M.
One ounce to be injected into the rectum every alternate day.

2. Anodyne pills.
℞ Pilulæ rhei. co. gr. xviii.
Mur. morph. g. iii. M. et divide in pilul. xii.
One anodyne pill to be taken every alternate day, and occasionally when suffering more than ordinary distress.

3. Aperient pills.
℞ Ext. colocynth. co.
Ext. hyoscyami, āā ʒ i. M. et divide in pilul. xxiv.
Two aperient pills to be taken every alternate night, between the use of the anodyne injection.

4. Tonic pills.
℞ Ferri. iodidi.
Pul. zingib. āā gr. xxx., Cons. q.s. ut ft. pilul. xxx.
One tonic pill to be taken three times a day.

"Before the use of the anodyne lotion, it was occasionally found necessary to empty the rectum, by means of a common domestic injection.

"I have endeavored to render the preceding sketch comprehensive and concise, avoiding equally unnecessary details, and omitting nothing essential to the full comprehension of the true character of the case. Knowing well that no symptoms of malignant disease of the affected organ existed, I always believed that a time would arrive when my patient would be relieved from most of her distressing symptoms, and released from her long-continued confinement. The catamenial crisis appeared the most probable period, but I did not despair of this happening sooner; though she never willingly listened to my suggestions of the probability of such prospective events, and seemed always best satisfied with anything approaching to an admission that she must ever remain a secluded invalid. This state of mind, perhaps, may be considered as an additional symptom of the morbid influence over the nervous system, of the class of diseases in which this case must be included.

"During the last year or two, in common with many of the friends of Miss M., I had frequent opportunities of observing the increased ease and freedom with which she moved about her sitting-room; and my conviction became confirmed, that the time was approaching when she would resume her habits of exercise in the open air. Oftener than once I have made use of the somewhat strong expression, that some day, probably before long, Miss M. *would take up her bed and walk*.

"In the history of this case it is probable that the advocates of mesmerism will find reasons and arguments in support of their opinions. But the experienced practitioner, carefully distinguishing the *post hoc* from the *propter hoc*, will have little difficulty in bringing the whole into harmony with the well-established laws of human physiology.

"As regards the pathology of the case, he will conclude that the condition of the uterus in December is but the natural sequel of progressive improvement begun in, or antecedent to, the month of April; and as regards the relief from the distressing nervous symptoms connected therewith, that the time had arrived when a new and powerful stimulus only was required to enable the enthusiastic mind of my patient to shake them off.

"After bestowing my best consideration on the subject, this is the conclusion which most strongly forces itself on my own mind."

Art. XIII.—*Medical Jurisprudence.* By Alfred S. Taylor. *Lecturer on Medical Jurisprudence and Chemistry in Guy's Hospital, &c.* Edited, with notes and additions, by R. Egglesfield Griffith, M. D., &c. 8vo. pp. 539. Lea & Blanchard. Phil., 1845.

Principles of Forensic Medicine. By W. A. Guy, M. D. Cantab Prof. of Forensic Medicine, King's College, Lond.: Physician to King's Coll. Hospital, &c. First Am. Edition, with notes and additions. By Charles A. Lee, M. D., &c. 8vo. pp. 711. Harper & Brothers. New York: 1845.

We place the titles of these books under the same head, because they treat of the same subjects, are to a considerable extent similar in their plan and execution, and because we can thus set forth their comparative merits, in a clearer and more intelligible manner.

With the latter we profess to be tolerably well acquainted, as we have endeavored to supply what was lacking to adapt it to the wants of the student and practitioner in this country; and with the former, we can affirm that we have read it with some care, which is more than all reviewers can say of the books that pass under notice.

Both of these works were published in London, in parts. The first part of Mr. Taylor's work appeared in 1836; but it was commenced on so extensive a plan, that he found it impossible to complete it within a smaller compass than four volumes; he therefore re-arranged the subject, and by using villainously small type, has succeeded in condensing the whole into one small volume—making, however, with the additions of the American editor, in readable type, a handsome octavo of 539 pages.

Mr. Taylor has followed no other arrangement than that of placing the subjects "in the order of their importance." First, he takes up the subject of "Poisoning," which is ably treated, occupying no less than 220 pages: the same subject in Guy, takes up but 188 pages. Mr. T. follows very closely the arrangement of Christison, as well as his mode of treating the individual articles; his classification is that originally proposed by Orfila. The directions in relation to *Chemical Analysis* are fuller than will be found elsewhere, out of Christison, and the symptoms and treatment are also dwelt on at considerable length, and in a very satisfactory manner. This fact of Mr. T.'s work cannot fail of giving full satisfaction to the reader, and we hardly know where we have a greater mass of valuable information, condensed within so small a compass. Mr. Guy has also treated the subject of Toxicology very ably. His arrangement, like that of Taylor's, is borrowed from Orfila and Christison, but he is far more concise in detailing symptoms, and chemical analysis, &c., his object apparently having been to render the tests for the poisons more easy of comprehension. In order to impress them more effectually on the memory, he has first arranged them in the order in which they would be applied, on the supposition that the substance submitted to analysis was unknown, and then adding such as are most characteristic of the poison in question. Dr. G. has also added some new analytical tables, and in the case of some of the more important poisons, he has condensed the value of individual symptoms, and the duration of the poisoning, from an extensive and careful analysis of cases. It is difficult to decide which of these modes of treating poisons is preferable; we are, however, inclined to think that the elaborate details of Mr. Taylor will tend rather to perplex the mind, unless accustomed somewhat to toxicological researches. To the student, we are very certain that Mr. G.'s manner of discussing the different articles will prove the most advantageous—and to the experienced practitioner the details will be found sufficiently minute for every practical purpose. The next subject treated by Mr. T. is that of "WOUNDS," occupying 107 pages. As these often give rise to questions, requiring the aid of the medical jurist, they are very properly discussed at considerable length. Mr. Guy sums up what he has to say on the same topics in about 60 pages.

The subject of "INFANTICIDE" is next in order; and takes up in Mr. T.'s treatise about forty pages only; in Mr. G.'s fifty-three pages. Both have availed themselves extensively of the labors of our distinguished countryman, Professor J. B. Beck, whose original researches on infanticide have constituted a mine from which all subsequent writers have continued to borrow (to use no harsher epithet). The results, however, to which both of our authors have arrived, differ somewhat from those of the authority above named. For example, Mr. T. remarks, "Many, in the present day, assert that the hydrostatic test is capable of proving whether a child has been *born alive or not* (*Beck's Med. Jour.*, p. 268). From what has already been stated, as well as from the most simple reflection on the circumstances accompanying the birth of children, I think it must be evident that the hydrostatic test is no more capable of showing that a child has been born alive or dead, than it is of proving whether it has been murdered or died from natural causes."—(See pp. 373, 4, 5, 6.) As respiration may be performed while the child is in the uterus, after the rupture of the membranes, the mouth of the child being at the os uteri, or while the head is in the vagina, or, lastly, while the head protrudes from the vagina, and still in each case the child may be still-born, Mr. T. very justly concludes that it is not sufficient for a medical witness to declare, from the state of the lungs, that the child was alive at the time of birth, but that he ought to be able to prove, from other circumstances, that the child was *born* alive, or that it was living after its body had *entirely* come into the world.

We have not space to dwell on all the subjects discussed in these volumes; we cannot, however, refrain from adding a remark or two on the manner in which the subject of INSANITY is treated. Mr. Taylor devotes about twenty pages to its consideration, including *criminal responsibility*—a topic which has assumed so much importance within the last few years—and we are compelled to say that this is the most meagre and least satisfactory portion of Mr. T.'s work. For some judicious criticisms on this part of the treatise, we refer to the American Journal of Insanity, pp. 281, 2, 3. We are inclined to believe that Mr. Guy has succeeded in handling this subject in a more satisfactory manner than Mr. T. But for proof of this assertion, we can only refer to the works themselves. As a treatise on medical jurisprudence, Mr. T.'s work is far less complete, in our judgment, than that of Mr. G. No chapters are devoted by him to the separate consideration of "*Feigned Diseases*," "*Age*," "*Identity*," "*Survivorship*," &c.; nor does the subject of "Medical Evidence" find admittance in his pages. All these and several other topics, not noticed by Mr. T., are fully discussed by Mr. Guy, who seems to have aimed throughout to render his work useful to the practitioner, by simplifying some subjects, by forming, in respect to others, more accurate standards of comparison, and by analyzing with care those statements of authors which bear upon points of the greatest practical importance. He first begins with a short statement of the existing provisions and requirements of the law, which is followed by an investigation, under distinct heads, of the chief medical questions arising out of the case; to which are appended practical rules for medico-legal examination, and cases, by way of illustration. The author, as it seems to us, possesses a rare faculty of simplifying the most difficult questions in legal medicine, and eliciting from authenticated facts its broad principles. As a text-book for students, as well as a manual for the practitioner of medicine and law, we believe Mr. G.'s work will be found particularly fitted. Concise in its statements, simple in its arrangements, and sufficiently ample in illustration, it presents claims to the patronage of both professions, not inferior to those of any similar work of equal size hitherto published on the same subject. In short, it is a comprehensive epitome of what is known in medical jurisprudence, embodying, within a convenient compass, all its important facts and principles, illustrated by a sufficient number of cases, but not to such an extent as to overburden its pages with unnecessary detail. As to the style in which these works are brought out, we feel no hesitation in claiming a decided superiority for the New York publishers; indeed, few publications on medicine have yet appeared in this country, which, in respect to paper, type, printing, and binding, can take precedence over Guy's "Principles of Forensic Medicine."

We cannot conclude this notice, without expressing our regret to perceive, by late English medical journals, that the authors of these excellent works have had an unpleasant paper controversy. It appears that a reviewer, in the London Medical Gazette, accused Mr. Guy of having made an unfair use of Mr. Taylor's book, not only adopting the plan of Mr. T., in treating the subject of poisons, but also appropriating, in an abridged form, a considerable portion of the work. This was followed by a letter from Mr. Taylor himself, who stated that he considered the charges of the reviewer to be correct, and that, in his opinion, his "Manual of Medical Jurisprudence had been more frequently used by Dr. Guy, without reference or acknowledgment, than was either proper or becoming in one writer following another so closely on the same subject." To these charges, Dr. Guy puts in the plea of "not guilty," and deems them "unparalleled for their injustice." He states that a threat had been held out by Mr. T., that his Third Part, when it appeared (and we began to think it never would appear), would have to pass through "a very severe ordeal;" and this, he remarks, made him very cautious about making any improper use of Mr. Taylor's book. We can easily imagine that, as he remarks, Mr. Taylor's work was a great embarrassment to him; for if he had referred to it, he might, by some untoward coincidence, have strengthened the charge of plagiarism; and if, on the contrary, he had made no reference to it, he would have been accused of passing over in silence the name of a cotemporary. We have observed that Mr. Taylor followed the arrangement of Christison; and Mr. Guy remarks, that if he wished to avoid the charge of imitating the former, he must have departed as far as possible from the plan of the latter, which he did not choose to do, and so incurred the charge of following Mr. Taylor. Now, as to the real facts of the case. We have had occasion, as before stated, to compare the two works very carefully, and we do not find any evidence of plagiarism on the part of Mr. Guy. He has indeed posted up, so to speak, as every scientific writer is bound to do, all the facts and principles of the science, so far as known, up to the date of his publication; and he has, of course, given such new tests, for poisons, as Mr. Taylor had discovered, as well as those from Christison and Orfila. But in no instance, as we believe, has he used Mr. Taylor's language, or quoted a single sentence, "*ipsissimis verbis*," as alleged. He has produced a work quite as original, in every respect, as any other hitherto published on the same subject. He has gathered facts, as Mr. Taylor has, from every source, and has made far less use of Taylor than he has of Christison, or Beck, and used even these less that Mr. T. himself has. He has given us a new arrangement of the tests for poisons; invented a new form of chemical table; presented sundry extensive analyses of cases of poisoning; introduced many novel suggestions and experiments, and altogether produced as original a work on medical jurisprudence as any with which we are acquainted. The charge is, indeed, in the highest degree preposterous and absurd. Suppose Dr. T. R. Beck should be accused of plagiarism, because, in the Toxicological part of his work on medical jurisprudence, he had borrowed largely from Christison, or Orfila? Could his work have taken rank as a standard on the subject, if he had not done so? Are not scientific facts (including chemical equivalents, tests for poisons, and incompatibles), common property? Who claims the right to debar the scientific world of discoveries in toxicological science,—a science in which every human being is deeply interested? And yet such, as we understand them, are the claims of Dr. Taylor. He did not accuse Mr. Guy of borrowing his *language* but only his *facts!* The charge comes, we must say, with an ill grace from the author of the "Manual;" for we have been able to find but very few original suggestions in his whole work. We hope, therefore, that Mr. T. will make the *amende honorable*, and acknowledge that the priority of publication confers no right of appropriating the common and familiar facts of chemistry. If he is not ready to do this, then let him persist in denying Mr. Guy, and every one else, the right (e. g.) of describing the effect of heat on the arsenite of copper; of mentioning the fact that arsenious acid combines with alkalies, forming soluble arsenites; of stating the deposit of octohedral crystals from a solution of white arsenic; of relating the effect of liquor potassæ on arsenic and corrosive sublimate, or of hydrosulphuret of ammonia on arsenic; or of so much as naming the chemical equivalents,—let him do this, we say, and so far from injuring Mr. Guy, we venture to assure him he will only injure himself. We, therefore, cannot but think that the attack on Mr. Guy is a most unjust one, as he has made no more use of Mr. Taylor's work than he was bound to do, in good faith, to his readers, and no more than every author is in the habit of making of the works of his predecessors. Next to the offence of appropriating the labors of others, without due acknowledgment, we know of nothing in authorship more contemptible than this over-sensitiveness, lest the results of our labors may be thus appropriated.

N. B. Those who have purchased some of the early copies of the American edition of Guy, may have observed on the top of the title-page the following significant words:

"*The latest and best work on Forensic Medicine.*"

Now, though we are not called on to say whether this be true or not in our judgment, wishing to leave this to be decided by the impartial reader, we nevertheless owe it to ourselves to state, that the title-page aforesaid is a spurious one, with which the editor had nothing to do—not having seen it till published, and for which the original proprietor alone is responsible. The editor feels no disposition to blazon forth his performances on a title-page, nor to forestall public opinion by an imprimatur, which may possibly be reversed at the same tribunal. Editors who notice the work, should such copies be sent them, will please bear this explanation in mind—the true title of the work being prefixed to this article.

ART. XIV.—*Researches on Scrofulous Diseases.* By J. G. LUGOL, D. M. P.; Physician to the Hospital of St. Louis, Chevalier of the Legion of Honor, etc. etc. Translated from the French by A. Sidney Doane, A.M., M.D., late Health Officer of the Port of New York, etc. etc.; with an Appendix, comprising Formulæ for the treatment of Scrofula. New York: J. S. Redfield, 1845. pp. 276.

WHEN we consider the great variety of chronic affections, their extensive prevalence from the earlier period of existence, and the vast amount of protracted suffering they produce, we cannot but be struck with their importance in a practical point of view, and the necessity of a close investigation into their general causes, and the study of their nature beyond the strict revelations of pathological anatomy. A more enlarged and comprehensive consideration of the subject of chronic diseases is needed before we can understand them in their nature; a more intelligent grouping of them appears to be required before we can successfully encounter them in all their varied forms. The living pathology—the consideration of the actual powers of the system—become an important and essential branch of medical investigation in all diseases of a chronic form, and where they exhibit that complication of derangement in the different tissues which can only be referred to an imperfect action of the power of life, connected with a deficient development of the system. All acknowledge the difficulty of treating many of these affections, and doubtless some of this difficulty arises from regarding them as local derangements; but an investigation into the condition of the entire system would often reveal to us causes for these protracted diseases which could not otherwise be found. The greater or less absence of the powers of recuperation from defective organization points out the true cause of the long continuance of some of these diseases.

Most of these obstinate and too often incurable maladies depend upon that state of the system which has been termed scrofulous, a term which, when used to distinguish a state of the constitution, implies a less proportion of normal action than when the system is fully developed in all its vigor and possesses its full amount of healthy action. We must go back to the ultimate state of interstitial action for a proper solution of the difficulty which so often meets us in witnessing the different results of the same exciting cause of disease, and refer to the nutritive process—to the imperfect powers of reparation and development, many of those obstinate chronic diseases which are produced by the same causes that in other instances produce diseases which are violent but transient in their duration. A feeble action of the vital powers gives rise to the protracted symptoms of the former class of affections. When the constitution of different individuals is examined two great classes will be remarked. The one is characterized by all the evidences of healthy action, where active inflammation ensues on the application of its ordinary causes, but terminating quickly in health in by far the greatest number of instances. This disposition exists in those possessing what is denominated a sanguineous temperament; which is in reality nothing more than the possession of the full development of the body. In such persons blood abounds in fibrine, the complexion is ruddy, and the muscles are firm and well-marked; all indicating a state of system capable of resisting the assaults of disease. A departure from this constitutional standard of health, when the individual possesses less constitutional vigor in resisting disease, marks the other class. In these there exists a great tendency to chronic diseases, and upon the application of the ordinary causes of inflammation, or if inflammation is actually produced, a protracted train of affections of the different tissues takes place remarkable for their extreme obstinacy—tubercles form in the lungs—ophthalmia—chronic otitis—swelling of the different glands—hypertrophy of the tonsils, etc. appear in the place of the speedy restoration of the healthy action which marks the other class. Some of these affections appearing in the prominent organs, have been regarded as indicating a predominance of these organs and a classification, recognizing this predominance, has been made; but if clearly examined it will be found that the various phases of constitutional peculiarity are nothing more than a greater or less departure from the healthy standard, exhibited in the different classes of organs. The transmission from parents to their children of that peculiar and multiform state of the system which has been denominated scrofulous, constitutes the author's views of the origin of diseases of this nature, and coincides with our views of the hereditary nature of that imperfection of vital action which leads to the development of most chronic diseases.

Part First of Lugol's excellent work is devoted to the consideration of the inheritance of scrofulous diseases, and of the health of parents who beget scrofulous children. On the inheritance of scrofulous diseases, he remarks.

> "The inheritance of scrofulous diseases may be recognized by two principal characters; 1st, the generality of the disease in the family; 2d, the very great mortality which it there causes. We shall study each of these characters in a special paragraph.
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> "§ 1.—*Generality of the disease in a family.*—The first and most prominent fact seen in the study of scrofulous diseases, is the generality of the disease in a family. This, however, does not always occur, because scrofula does not appear in all the members of a family at the same age, in the same manner, nor in the same degree, and may affect children only successively.
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> "At the first glance, we recognize a constitution common to all the children—a family constitution—a scrofulous constitution, which reveals the fatal predisposition with which they are affected, and in consequence of which they will be subject to scrofulous diseases. This constitution is the first sign which announces the generality of the disease in the family; the first which indicates inheritance, and that which gives us a hint of the kind of diseases with which children are threatened. Hence we shall devote a few pages to this, before treating of the other characters of the inheritance of scrofulous diseases.

"*Of Scrofulous Constitution.*—Scrofulous families are recognized by a general mark of debility, which is seen in all the children. A scrofulous constitution permits at most a negative state of health with some, and indicates a want of strength and a good organization.

"In their physical formation, these children are not symmetrical: the trunk and extremities are not developed proportionally: the head is too large: the limbs are badly adapted to a feeble body, which is too long or too short; the limbs, too, have not their proper length: the joints are generally too large.

"The median line is frequently not in the centre of the body: it seems as if its two halves are not properly joined, one being higher and more anterior than the other. This latter arrangement, a consequence of unequal development, indicates an unfavorable prognosis of those diseases which will supervene afterward. I shall cite cases proving this, which have occurred in several children of the same family.

"Not unfrequently, there is a want of union on one or several points of the median line. It is generally scrofulous subjects, who present instances ot separation of the linea alba, hare-lips which are simple, or complicated with a separation of the bones of the palatine arch and the two halves of the velum palati. In some children, the chest is misshaped; the ribs are twisted; the sternum projects upward and forward, and its different component parts can be felt under the skin: the antero-posterior diameter of the thorax is greater than the transverse.

"This defective formation may change progressively between the ages of eight and twelve years. When this does not occur, we may still hope that at the period of puberty the deformity may be modified, and that the osseous frame of the chest may approach the normal state; but more frequently it continues, and thus prevents the regular development and complete expansion of the lungs, which is an unfavorable sign, for it indicates that the scrofula is deeply rooted in the system.

"Scrofulous persons are generally short in stature, but sometimes, on the contrary, very tall. These two extremes depend on the same principle, that vitality has not power sufficient to regulate the development of the organs, which are thus arrested in the commencement, or receive an unlimited degree of nutrition. The mouth is small or much too large; the teeth of the first and second dentition, but especially the latter, appear late. They are not white, but have a blackish tint, decay readily, and are very friable. The spongy tissue of the bones is too much developed, in proportion to their compact tissue and the soft parts. This state of the spongy tissue is easily recognized by the following marks, which however do not always coexist:—the malar bone is too prominent: the base of the lower jaw is too much developed, which gives the individual a peculiar rachitic appearance. The extremities of the long bones are too large: the feet and hands, which are formed principally of short and spongy bones, present, in some cases, an unnatural and ungraceful development. The pubis, sacrum, and ischia, are in a state of hypertrophy, which is much to be dreaded in females, as it causes afterward difficult labor (2d part, pathological causes). The body of the long bones is usually small, and their compact tissue is very thin.

"The growth sometimes presents the most opposite extremes. I have frequently seen, in my wards at the hospital St. Louis, individuals eighteen or twenty years old, who are not more than 1 metre* 33 centimetres high. I have seen one twenty years old, who was only 1 metre 20 centimetres tall. He did not grow at all, but rather wasted away during the four years passed in the ward St. John, where he died in 1836. I had a drawing made of him in 1832, one third of the natural dimensions, by M. Chazal, painter to the Museum of Natural History, and his picture, which was an admirable likeness, measured only 40 centimetres in height. I placed his skeleton in the Anatomical Museum, where it was pronounced by my friend and colleague, M. Serres, among the most curious specimens in the collection.

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* The metre is three French feet.

"I have often compared, in the presence of my class, this patient and several others in whom the growth was much retarded, but in a less degree than the instance cited, with other scrofulous patients of the same age, who measured 1 metre and 65 and 66 centimetres in height: some were even taller, and one named Collet, measured 1 metre and 95 centimetres in height. But in these tall patients, the trunk and limbs were no more symmetrical, nor in better proportion, than those whose growth had been arrested. The head in them was generally too small: their carriage was extremely bad, and they were deficient in energy.

"The digestive apparatus is very weak, and hence all the assimilating functions are deranged. Many scrofulous children are never hungry; and there is so much anorexia, that they do not consume the fourth part of what is generally eaten at their age. This want of appetite comes from the inertness of the digestive organs, which I attribute to a catarrhal state, of the same nature as ophthalmia, coryza, otitis, bronchitis, leucorrhœa, &c. This state is very common in scrofulous patients, and becomes chronic in the alimentary passages of some of them.

"Those children, who eat but little in consequence of their debility, become more and more feeble because they do not eat. No improvement can be expected, until the functions of the alimentary canal are performed better; for this, a necessity for food must be felt, and digestion be properly performed. The absence of appetite is one of the symptoms which must first be remedied; for it cannot continue a long time without becoming a very active cause of sickness, as it arrests in its source the development of the organs, which being already weak, must become still more feeble, when the materials for their growth are not supplied. I treat this state of the alimentary canal, by administering purgatives several days in succession; rhubarb, calomel, and jalap, in equal parts; seidlitz water, or castor oil. I then use preparations of iodine, which possess, in a great degree, the power of giving an appetite, after the patient has been thoroughly purged.

"I am now attending a family of five children, four girls and a boy, all of whom have an irregular appetite, and are generally very feeble. None of these children are of the usual size. The eldest girl is sixteen years and a half old; is only 1 metre and 45 centimetres high, and has not yet menstruated. In these five children, the teeth are black, and they all have red spots on the face.

"In other and rare cases, there is a voracious appetite, which is of no use, and the growth of these children is nearly as much retarded as where they eat but little.

"I know a family composed of four children, who have tubercles, in whom the digestive passages are very active, and yet no one has a moderate degree of plumpness. This state of the digestive canal is generally attended with habitual paleness of the face, which at this period of life is often a forerunner of pulmonary tubercles. The eyes are suffused; the breath is offensive; children have itching of the nose, which leads to the suspicion of worms in the alimentary canal, which, however, are not always found in the alvine evacuations. The predisposition seems to exist without having produced its effects. Thus in many tuberculous persons tubercles have not yet appeared.

"The excrementitious functions are irregular. Sometimes there is constipation, which perhaps depends on the dryness of the mucous surfaces, and the feeble peristaltic motion of the intestines; sometimes a diarrhœa of bad character is complicated with this constipation. It might be called a transient blenorrhœa of the intestinal canal, similar to that often seen in the eyes, nose, ears, &c. However copious and durable this intestinal blenorrhœa may be, we ought not to be surprised if the mucous surface of the intestines secretes proportionally as much mucus as the conjunctiva or the pituitary membrane in certain cases of ophthalmia and scrofulous coryza. The dejections contain sometimes badly digested food, because in this catarrhal state of the intestinal mucous membrane, the digestion of the food must be very imperfect.

"The skin and cellular tissue are extremely thin, or in a state of peculiar hypertrophy, indurated hypertrophy. Many scrofulous subjects have a dry skin covered with papulæ of lichen and prurigo: there is a general want of transpiration, although partial sweating of the feet, hands, and axillæ, often occur. These sweats generally have a marked acid smell.

"The physiognomy seems prematurely old in infancy, and at a later period the contrary is true; the trunk and the limbs are then younger than the individual; that is, they have not the development nor the force generally seen in healthy persons of the same age.

"Persons of this constitution have frequently an unconquerable apathy and indifference. We see many scrofulous children who must be led out to walk, because they are extremely averse to motion. In one case particularly, this aversion to move was so great, that a young lady was with difficulty induced to stroll in a garden which was on a level with an apartment occupied by her family.

"Mothers often complain that their children, and especially young girls, have a bad carriage: they permit their head to fall forward, as if they could not support its weight; that they are indifferent, and always wish to sit. These young girls cannot do otherwise. They stand badly, because they are not strong enough; because the muscles which support the vertebral column are wasted; because the muscular system is not sufficiently developed, and the fibre in these young girls generally wants the degree of tone necessary to keep the body in a proper equilibrium. To these causes must be added the want of harmony between the parts of the skeleton which we have mentioned above, and which is most generally only the rudimentary state of much greater deformities which supervene on the approach of puberty—often before this age, and rarely after it.

"Children of scrofulous constitution often experience a spontaneous degree of lassitude, which is increased, rather than diminished by repose. Some know not what to do with their limbs in bed; and the repose of the bed fatigues more than it refreshes, and they are always more tired in the morning than in the middle of the day.

"I have known many children affected with catarrhal scrofula, who for many months had taken no exercise except to go from a bed to a sofa. This apathy is one of the worst signs of a scrofulous constitution; one of those which become a cause of the progress of this constitution. Hence it should be treated particularly by bodily exercises, proportional to the effects produced by the indifference in which the children have been brought up. I have observed the same thing in the course of most scrofulous diseases, and generally the patients are not refreshed by sleep at night. This phenomenon had already been remarked in those affected with pulmonary tubercles, who suffered more during the night than in the day.

"The swelling of the upper lip is also more marked in the morning than during the day: in some young girls, the swelling is not manifest, except for a few hours after rising."

The remarks on the scrofulous countenance exhibit a great accuracy of observation. He places less reliance on it than is generally done by authors, judiciously remarking that it is only present where scrofula is seated principally if not exclusively in the face.

"It is the cutaneous, cellular, catarrhal scrofula of the face: there is hypertrophy of the lips, the alæ of the nose, cheeks, eyelids, and their loose edges; lobules of the ears, and of one or more of these parts, but most generally of the middle portion of the upper lip. The subjacent cellular tissue participates in this state of indurated hypertrophy, which disfigures the countenance very much. These partial indurations are very significant: they are constantly connected with a predisposition to tubercle.

"I have seen tubercular disease of the lungs commence by the enlargement of the features of the face, but particularly by that of the upper lip. When this hypertrophy supervenes, and the countenance loses its regularity, the body is deranged internally: the sick grow thin, and lose their strength before the appetite begins to diminish, and even before there is cough.

"I have known this swelling of the upper lip appear for the first time at the usual age of puberty, and even some years afterward, and thus bind itself to the temperament of a family of children, who were considered safe from the attack of scrofula.

"I must here only point out the partial indurations of the face, and not describe them particularly, for this would require us to advance too much with the diagnosis, which we have been already compelled several times to begin.

"This indurated hypertrophy of the skin, and subjacent cellular tissue, is generally attended with a catarrhal state of the mucous surfaces, which may be habitual and but slightly marked for many years. Authors have termed this complication, the *scrofulous countenance.*

"This state of the face is not noticed in all cases of scrofula, but, on the contrary, is very rare. We never have seen but a few cases of it at a time, and we have often mentioned to our pupils its entire absence in a population of 100 scrofulous persons, in the hospital St. Louis.

"To return to the scrofulous countenance: let us now speak of the embonpoint which has been ascribed too generally to scrofulous subjects, and to females more particularly than to males.

"On the subject of this embonpoint, we shall make the same remarks as those already presented in regard to the scrofulous countenance of writers. We say that this embonpoint is not common to scrofulous persons, and that when it exists, we always notice some fatal coincidents which reveal its character.

"Females of this complexion are of the common height: their skin is white and red: their eyes a little moist, and the transparent cornea slightly bluish: they are plump, round, and have a fresh appearance. This complexion in early youth gives a brilliancy, an appearance of beauty, which the world erroneously regards as real, and as indicating a good constitution. But to the observing physician, this state of health is far from being satisfactory; for this ephemeral beauty so much admired, is only the scrofulous predisposition strongly marked on the skin and cellular tissue of the body. This state is the certain forerunner of scrofulous diseases, which will supervene spontaneously in a longer or shorter period. The medical man makes predictions which generally are not understood, and which sometimes displease the parents: unfortunately, they are realized too early by the young females and their children.

"In fact, however beautiful this complexion may appear, still it presents the want of harmony which we have already mentioned. These appearances of health form a contrast with some of the following signs which belong to scrofula:—the pupil is too much dilated: there is a slight discharge from the eye, and matter on the eyelids: an habitual coryza: the teeth are white, but too long and compact; they are frequently black and carious: there are partial sweats of a penetrating odor: the hair is scanty, and badly nourished; it is too dry or too oily: there is constant leucorrhœa, which in some cases is very profuse: there is frequently dysmenorrhœa, sometimes amenorrhœa, and menstruation is rarely regular. Women who are very fat often have no appetite, and take but little nourishment; very frequently females of this complexion are subject to head-aches, which cause them much suffering. Finally, this embonpoint does not long resist the progress of the scrofulous habit, and it is most frequently replaced by a meagerness which produces deep and permanent wrinkles in females who are yet young."

We have seen tubercular affection of the lungs first manifest itself, as remarked by our author, by an enlargement of the upper lip, remarkably alternating with the pulmonary affection; the latter always becoming relieved in proportion as the hypertrophy of the lip increased.

In this part of the subject the inheritance of scrofulous diseases is carefully studied, and many facts are presented in regard to the generality of scrofula in the family, and to the very great mortality of children which is its inevitable consequence. The examination also of the inheritance of scrofulous diseases, as observed in the different branches of a common origin, is next in order, with a great number of highly interesting facts in illustration, as are also the effects of different marriages. The mortality of children of scrofulous habit forms a most interesting portion of this branch of the subject. The following are his concluding remarks upon this subject.

> "In this statement of deaths, we must not forget still-born children. Abortions are very common in females who have scrofulous children, either on account of their own personal health or that of their husbands. (Part 2, *Pathological causes.*) At least one fourth of the scrofulous children die during fœtal life. I regard these abortions as the highest and most intense degree of hereditary disease. In fact, it is evident that the fœtus who dies scrofulous is much more affected than the child who dies a longer or shorter time after birth.
>
> "Scrofula is then the most active principle of the destruction of the human race. No other disease cuts off so many and as young victims, and there is no cause which abridges human life so much.
>
> "Buffon says, that the nearer death approaches, the slower is its step. This general remark has no other reason than the original good health of the individuals. Hence one does not grow old unless one is well organized; unless the body be free from hereditary diseases: an advanced age, therefore, is the sign of a healthy organization, which may be prolonged during the whole course of human existence."

The health of parents who beget scrofulous children is next considered, under which division is studied previously the original health of parents. Scrofulous children are born from scrofulous parents, from such as are affected with pulmonary tubercles, and from such as do not exhibit the existing marks of the disease, but who nevertheless transmit the affection to their offspring. In the last mentioned instance the hereditary nature of the affection is shown by various instances proving its existence in the immediate progenitors in a latent state. On the transmission of scrofula by parents affected with pulmonary tubercles, the author remarks,

> "Practitioners still make so great a difference between scrofula and tubercle, that they treat these diseases as if independent of each other. A patient affected with white swelling, is treated without attaching any importance to the death of a brother from the development of pulmonary tubercles. On the other hand, they notice the progressive course of tubercles in the lungs, without establishing any relation between this latter disease and instances of white swelling which have existed, or which then exist in the family. The time is not remote, I think, when the relation of these diseases will be generally admitted, and put beyond the reach of all controversy.
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> "We have seen that scrofula most frequently has a tuberculous origin, and that scrofulous families lose many of their children by diseases of the chest. We shall now see that scrofulous patients are affected with pulmonary tubercles like those of their brethren, in whom scrofula manifests itself only in the respiratory organs."

The acquired health of parents is next brought under notice, and the effects of syphilitic taint, of venereal indulgences, precocious marriages, extreme age of parents, the disproportion between their ages, feeble, epileptic, paralytic or maniacal parents, are all considered, with many forcible and interesting instances.

In the further consideration of the hereditary nature of scrofulous diseases the transmission in these cases where the cause is not sufficiently marked in the original or accidental health of the parents, the complications of hereditary causes with each other, the influence of marriages and the health of females, are all duly considered, and throw light upon many obscure points.

The Second Part of this work is devoted to the pathological causes of scrofula; this is introduced by some judicious remarks which convey in a condensed form the views of the author upon this interesting portion of his subject.

In Part Third are considered the external causes of scrofula. Endemic influence occupies much of the attention of our author, whose views must meet the decided approbation of every candid reader.

The endemic cause, Lugol considers as possessing no peculiar evident quality, and very successfully proves that humidity is not a cause of scrofula. We cannot refrain from quoting a passage upon this subject, which has recently received some illustrations in our own country.

> "Finally, several dissertations which have been published on the antagonism between marshy fevers and tubercles, also serve to prove that humidity does not engender the tuberculous state.
>
> "From our remarks, it is evident, I think, that humidity has been wrongly admitted as the only cause of this kind of endemia; that scrofula exists endemically in very extensive provinces, where there is no humidity, and which are even dry; that endemic scrofula is not observed in very damp places; that this last disease does not affect equally all the inhabitants of a country who live under common influences; and finally, that the cause of endemic scrofula, whatever it may be, has no particular endemic quality."

Scrofulous endemia produced by the importation of scrofula, the antiphlogistic treatment of venereal diseases as a cause, and scrofulous endemia from defect in the crossing of races, form a very interesting part of the chapter devoted to endemic scrofula.

In the succeeding chapter, the influence of climate and seasons on the progress of scrofulous diseases is duly studied, with some original views which could only be the result of close and repeated observations.

The occasional causes of scrofula are next considered; the following are his introductory remarks:

> "The doctrine that certain external occasional causes may produce scrofula, has already been contested implicitly by our remarks on inheritance and on endemia.
>
> "We cannot expect to find in a book of this character, a very long enumeration of the occasional causes which authors have copied from each other, without ever ascertaining if the existence of these causes rested on experience. Most of these causes are denied: those which are admitted, have only led to error as to the nature of scrofulous diseases: these errors are rooted so deeply in the field of science, that it is very difficult if not impossible to eradicate them. It is desirable, however, that the occasional causes should be estimated at their true value, and that it should finally be admitted that all of them united cannot render an originally healthy man scrofulous. With this view, we shall proceed to analyze the principal external causes mentioned by authors."

After some remarks upon the spontaneous invasion of scrofula, the author considers the influence of vaccinia, onanism, menstruation, contagiousness of scrofula, the inoculation of scrofulous pus, and successfully refutes some prevalent and erroneous ideas as to the effects of these agents in the development of the disease.

We cannot let this part of the subject pass without referring to a remarkable instance of the effects of vaccinia artificially inducing diseased action in a scrofulous habit, and we doubt not that many practitioners will recollect cases of a similar kind. We vaccinated two children of different families with virus from the same vesicle. One of these children exhibited the vaccine disease perfect in all its stages, leaving a perfect and well marked cicatrix. The other was affected with a spreading ulcer that did not heal in three months, while a pustular eruption appeared in different parts of the body.

This eruption affecting the scalp, produced that obstinate disease known as tinea capitis; which partially disappeared upon the use of iodine, but which re-appeared when teething commenced. These results were of course attributed by the parents to the use of "bad matter," but the true cause was evident in the tendency to scrofulous disease inherited from both parents. The father has a small polypus in the nose, and a tumor has lately appeared on the inside of the lower lip of the size of a pea, of a purple color, which gives him great uneasiness as his grandfather had a cancerous tumor taken from his lip; his numerous decayed teeth also exhibit the signs of a great degree of physical derangement. One of his sisters has a chronic ophthalmia, and another presents a general lymphatic condition of the neck and lips, giving the whole face a thick and dull aspect. The mother has a curvature of the spine, and a considerable distortion of the chest, one side being much more depressed than the opposite. The deformity thus produced in the different elevations of the shoulders is only obviated by a free use of padding.

The supposed influence of other occasional causes, as moisture, regimen of prisons, camps, ships, and the recapitulation of the doctrines in the latter part of the work, completes the original work of Mr. Lugol.

Dr. Doane has added a valuable appendix upon the different preparations of iodine which have been found beneficial in this disease.

With reference to the translation, we need not say that it is faithfully and well done; Dr. Doane's reputation is a sufficient guarantee for its accuracy, even were the work not compared with the original. The mechanical execution of the work reflects great credit upon the enterprising publishers.

ART. XV.—*A Practical Treatise on the Diseases peculiar to Women, illustrated by cases derived from Hospital and Private Practice.* By SAMUEL ASHWELL, M.D., Member of the Royal College of Physicians, London, &c.; 1st Am. Ed. with notes by Paul B. Goddard, M.D., Lecturer on Anatomy. Phil.: Lea & Blanchard, 1845. 8vo. pp. 520.

WHEN a writer puts forth a practical work on any branch of medicine, we naturally inquire, what opportunities has he enjoyed, what are his claims, in assuming to instruct the profession in the department of which he treats? Judged by this test, Dr. Ashwell assumes a very commanding position. For nearly twenty years he has been in attendance upon *Guy's Hospital* of London, with its extensive lying-in-charity, and has besides enjoyed a very extensive private and consultation practice in female diseases ; so that if any one has a right to speak *ex cathedrâ*, on this subject, he is fairly entitled to claim such prerogative. But without claiming any undue deference for the opinions and practice set forth in this admirable treatise on the above grounds alone, we think that the truth of the principles and treatment laid down fully entitle it to the confidence and support of the profession. The work is, indeed, an original one, containing little besides the results of the author's own practice and observation, conveyed in a plain and perspicuous style, and forming a very safe and efficient guide to the elucidation and curative treatment of the peculiar diseases of females. The value of the work is also enhanced by many formulæ of remedies appended to the various chapters.

We are sorry that Dr. Goddard has allowed his name to be placed on the title page as editor. His additions neither add to the value of the work nor do himself any credit. They amount to less than *seventy lines*, besides one extract of a couple of pages from the London Lancet. If editing like this is not a farce and calculated to bring disgrace upon the very name, we hardly know what is. No man has a right to mount behind the gallant rider of some noble Pegasus, or Bucephalus, without so much as saying " by your leave, sir," and thus like a parasite, unable to walk or even stand alone, be wafted onwards to the desired goal, with no other apparent recommendation than the possession of the usual quantum of *vis inertiæ*. A feat like this, in the present case, is less excusable, as the editor himself is said to possess speed and bottom of no ordinary kind. There are many European medical works appearing from time to time, that are well worthy of publication here, but need additions to adapt them to the wants of the profession, and such books should be edited, and such *only*. An editor should feel that he has reputation and character at stake, and that if he does nothing to increase the value of a work, he is certain to give rise to a suspicion that he has other objects in view than to benefit the profession, by enhancing the merits of his publication. To edit a work well, requires knowledge, talent, industry and labor, and where neither of these are displayed it is a very satisfactory sign, either that the work did not need editing, or that the editor lacked the necessary qualifications. The former, we hold to be the true alternative, in the present instance. The work of Dr. Ashwell is very complete in itself, and can hardly be improved by annotations from another hand.

The astuteness and acumen of Philadelphia lawyers have become proverbial. Philadelphia editors seem doomed to equal notoriety, but for somewhat opposite qualities. As *Lucus* is said to be derived *a non lucendo*, so our Pennsylvania brethren seem to have got a notion, that the word *edit* from the Latin *edo*, is always to be understood with a negative prefix —or they may derive it from that other *edo*, " to eat," " to devour,"— either with reference to the tangible avails derived from said process, or to the havoc made with foreign authors, who are swallowed entire, as a boa would swallow a rabbit.

Art. XVI.—*A Dictionary of Practical Medicine; comprising General Pathology, the Nature and Treatment of Diseases, Morbid Structures, &c.* By James Copland, M. D., F. R. S. Edited, with additions, by Charles A. Lee, M. D. Nos. III. & IV.—pp. 288.

This important work "presents in an abstract and condensed form, the opinions and practice of the most experienced writers, British and Foreign, so digested and wrought up with the results of the author's practice, that the student and young practitioner will not be bewildered in the diversity of the opinions and facts adduced for their instruction, but guided in the difficult path in which they have entered, and enabled, with a due exercise of their powers of observation and discrimination, to arrive at just conclusions and successful practical results, besides furnishing the experienced practitioner with a diversified range of opinions, methods of cure, and authorities, which his matured judgment will enable him to apply in an appropriate manner to particular cases."

"This design," continues the Editor of the "*American Journal of the Medical Sciences*," "has thus far been executed in so masterly a manner as to have obtained general commendation, and when completed, will be a work, which the extensive and laborious research which it displays; the ability with which the materials are digested and condensed; the deep reflection and excellent judgment conspicuously manifested, render an extraordinary monument of individual industry. The American Editor seems disposed to rival the author in industry, his additions to the part before us being very numerous, and adding greatly to its value, particularly by supplying the observations and experience of American physicians which have been overlooked in the original, and enriching the bibliography, with references to our own literature," &c.

These remarks of the Philadelphia Editor render any comments from us unnecessary. We are happy to learn that the work will go on, and be completed within a reasonable time; indeed, we have no doubt, at a much earlier period, than the "*American Cyclopedia of Practical Medicine and Surgery*," to be completed in forty numbers; the first volume of which was published in 1834, the second a year or two afterwards, and the third has not yet come to light. As the essays are, however, complete in themselves, should the author die or his courage give out, before he has completed the whole, and should there be found no one qualified or willing to go on with the work, it may be bound and sent out with a new title page, under the imposing title of "Select Essays on Medical Subjects," and in this form possibly find more purchasers than it would have done under its original Dictionary Title.

Art. XVII.—*Observations on the Structure and Diseases of the Testis and Thymus Gland, with numerous plates.* By Sir Astley Cooper, Bart., F.R.S. Edited by Bransby B. Cooper, F.R.S.; Surgeon of Guy's Hospital; Lecturer on Anatomy, etc. Phil.: Lea & Blanchard, royal octavo, pp. 247 & 37.

We hardly know which most to admire in this work, the value of the knowledge communicated,—the *matter*—or the *manner* in which it is brought before the public. It is fitting that the thoughts, the results of the experience of such a man as Sir Astley Cooper should be displayed in a handsome dress, and we deem it fortunate for the profession that there are publishers in these United States, who are influenced by principles of taste and propriety, as well as by those of a more interested nature.

We here have the two great works of Cooper, unmutilated and *unedited*, in one volume with the original illustrations reduced, with the most scrupulous care to exactness, so that the work may correspond with the same publishers' edition of the author's work on Hernia.

Our readers need not be told that this work has enjoyed the very highest reputation from the time of its first appearance in England, now more than ten years ago, and has been for some time out of print. We hope it may have a circulation extensive with its merits, so that the worthy publishers will feel justified in continuing the works of the author in the same beautiful style. The illustrations are numerous and finely executed, and altogether the volume is an ornament to the American Press.

ART. XVIII.—*A Practical Treatise on the Diseases of the Respiratory Organs, including Diseases of the Larynx, Trachea, Lungs, and Pleura.* By CHARLES J. B. WILLIAMS, M.D., F.R.S., etc., with numerous additions and notes, by Meredith Clymer, M.D., Physician to the Philadelphia Hospital, etc., with wood-cut illustrations. Phil.: Lea & Blanchard, 1845. 8vo. pp. 508.

THIS work embodies the Essay originally contributed by Dr. Williams to "Tweedie's Library of Practical Medicine;" to which large additions have been made from Dr. W.'s late lectures, as published in the London "Medical Times," to which the American editor has liberally contributed from the results of his abundant experience, gathered from long attendance upon the hospitals of Europe and this country, as well as an extensive private practice; altogether making up the most complete and satisfactory work that has yet appeared on Pulmonary Diseases. The editor has drawn largely from the works of Louis, Grisolle, Piorry, Rilliet and Barthez, Valleix, etc., embodying also the very valuable synoptical tabular statements from the manual of Dr. Walsh, entitled "The Physical Diagnosis of Diseases of the Lungs." Phil. 1843.

The wood-cuts, illustrating the physical examination of the chest, are admirably executed, and the whole mechanical execution of the work does much credit to the publishers. This work is undoubtedly destined to take precedence of all others yet published on the "Respiratory Organs," and as a text book for teachers and students, no better, in the present state of the science, is to be expected.

Art. XIX.—*Remarks on the Influence of Mental Excitement upon Health.* By A. Brigham, M.D., Superintendent and Physician of the State Lunatic Asylum, Utica, N. Y. Third edition. Phil.: 1845. 12mo. pp. 204.

This is the well-known Treatise published by Dr. Brigham in 1832, and which has had an extensive circulation both in this country and Europe. No work of similar size, perhaps, has done more good in correcting the erroneous views, so generally entertained a few years ago, in relation to the proper education of the young. It was the first American work, we believe, that called the particular attention of parents, guardians and teachers, to the baneful influence of excessive mental cultivation in childhood and early youth. A few years since the principle was hardly imagined that the brain was the organ of the mind; and although it was a matter of common remark, that precocious children died young, yet strange to say, the danger of over-taxing the brain by such early excess of exertion, was almost entirely lost sight of, and this delicate organ was stimulated and goaded on by hot-house culture, till the explosion of disease extinguished at the same time the brilliant hopes of the parent and the life of the child.

This book ought to be studied by every parent, and every teacher in the land; for notwithstanding the vast improvement that has taken place in modes of education in this country, within a few years, the reform has been but partial, and children are still sacrificed in hecatombs, in order to sustain the reputation of boarding-school teachers, and turn out specimens of youthful "prodigies." Let them ponder upon the fact that the bright intellect displayed by highly gifted children is, in most cases, the result of disease, or of a state of brain closely bordering thereon, and that such individuals, if they live, generally turn out very ordinary adults.

Art. XX.—*The Principles of Surgery.* By James Miller, F.R.S., E.F.R., C.S.E., Professor of Surgery in the University of Edinburgh, Surgeon to the Royal Infirmary, &c. &c. Philadelphia: Lea & Blanchard. 1845. 8vo., pp. 518.

This is one of the best expositions of the principles of modern surgery that has ever fallen under our notice. It exhibits, within a reasonable compass, a condensed view of the principles of the healing art, combining great simplicity of arrangement, and plainness of illustration, with soundness of doctrine, thus furnishing an admirable compend for the use of the student as well as the practitioner.

It is prefaced by the well known historical sketch of surgery, as prepared by the author for the last edition of the Encyclopædia Britannica, occupying twenty-eight pages; and although necessarily concise, it embodies the principal facts connected with the progress of this department of the science.

The arrangement strikes us as peculiarly happy. Section 1st, treats of *Elementary Disease*, under which we have six chapters—I.

Perverted Action of the Blood Vessels, embracing inflammation and congestion: II. *Perverted Action of the Nerves*, embracing irritation (local and constitutional), and the shock of injury: III. *Perverted Action of the Absorbents*, embracing atrophy, interstitial absorption, and continuous absorption: IV. *Suppuration*, embracing acute abscess, chronic abscess, diffuse abscess, scrofula: V. *Ulceration*, embracing granulation, cicatrization, ulcers: VI. *Mortification.* SECTION II. treats of *Perverted Vascular Action in certain Tissues*—as I. Perverted Vascular Action in the Integuments: II. In Bone: III. Diseases of Joints: IV. Of Arteries: V. Of Veins: VI. Of Hemorrhage: VII. Of the Sympathies: VIII. Of Nerves. SECTION III. treats of *Tumors.* SECTION IV. I. Of *Injuries:* II. *Burns and Scalds:* III. The *Effects of Cold:* IV. Of *Fracture:* VI. *Dislocation:* VII. Of *Sprain and Rupture of Muscle and Tendon:* VIII. Of *Bruise.*

No mention is made of the various *plastic* operations; for the fullest account of which yet published, the reader will have to consult Drs. Townsend and Mott's translation of Velpeau's Operative Surgery, just issued by H. G. Langley, New York.

We commend this work, with the greatest confidence, to the profession, as an excellent synopsis of the principles of surgery, which every practitioner would do well to place in his library.

ART. XXI.—*The Retrospect of Practical Medicine and Surgery, being a half-yearly journal, containing a retrospective view of every discovery and practical improvement in the Medical Sciences.* Edited by W. BRAITHWAITE, Surgeon, &c. No. X. July to January, 1844. American edition. New York: Daniel Adee, 107 Fulton street. 1845. 8vo., pp. 231.

THIS is one of the largest and most valuable numbers of the "Retrospect" yet published. The plan and execution of the work are too well known to need any praise at our hands. If the editor, however, would be rather more liberal in his extracts from American medical journals, he would give perhaps better satisfaction to his readers in this country. The present number embraces but six notices from this side of the Atlantic; one of transplantation of the Cornea, by Dr. R. S. Kissam, and one of treatment of Fractures of the Clavicle, by Dr. A. L. Cox, were originally published in this journal. We presume the editor is not in the habit of seeing the Boston Medical and Surgical Journal, the Medical Examiner, the New Orleans Medical Journal, the Western Lancet, the Western Journal of Medicine and Surgery, the Southern Medical and Surgical Journal, the Illinois Medical and Surgical Journal, the Montreal Journal, &c. If it is intended to make the "Retrospect" what it pretends to be, "*a view of every discovery and practical improvement in the medical sciences*," we would suggest the propriety of having access to the publications, where these improvements and discoveries are likely to be found. As it is, however, the "Retrospect" is well worthy the patronage and support of the profession; although it contains few, if any, notices of what is done in France, Germany, or any of the countries of Europe, except Great Britain. A truer title of the work, in its present shape, would be "A Retrospect of some of the more important improvements and suggestions in Practical Medicine and Surgery, as embodied in the principal medical periodicals of Great Britain, with occasional notices of medical improvements and discoveries in the United States, and other countries."

To show that our criticism is founded in truth, we quote the authorities from which the present number is made up. The Medico-Chirurgical Review is quoted sixteen times; the British and Foreign Medical Review, seven times; the Medical Times, fourteen times; the Provincial Medical Journal, sixteen times; the Medical Gazette, twenty-five times; the Lancet, thirty-five times; the American Journal of Medical Sciences, four times; the London and Edinburgh Journal of Medical Science, sixteen times; the Northern Journal of Medicine, ten times; Guy's Hospital Reports, once; the Edinburgh Medical and Surgical Journal, six times; the Dublin Journal of Medical Science, eight times; the Dublin Medical Press, once; the Journal de Chemie Medicale, once; the Pharm. Transactions, four times, and the New York Journal of Medicine, twice.

Art. XXII.—*The Chemistry of Vegetable and Animal Physiology.* By Dr. G. T. Mulder, Professor of Chemistry in the University of Utrecht. Translated from the Dutch, by P. F. H. Fromberg; with an Introduction, by Professor J. F. W. Johnston, F.R.S.: with Notes, &c., by B. Silliman, Jr. Vol. 1; Part 1; No. 1. New York: Wiley & Putnam. 1845.

This work will be extensively sought for, read, and pondered. The author enjoys a reputation in Europe, as a scientific chemist, second to that of no other living chemist, not even excepting Liebig or Dumas; and whatever falls from his pen is stamped with the marks of originality and genius. In point of talent and power of analysis, this work of Mulder's must take precedence of the works of Liebig even, which are too often disfigured by hypothetical speculations on points connected with physiology and pathology, however high they may rank as standard authorities on analytic chemistry. As we shall hereafter make it a subject for an analytical review, we shall forbear from further comments at this time.

Art. XXIII.—*A Lecture on the Physiology of Digestion, Introductory to a course of Lectures on the Institutes of Medicine and Materia Medica.*—Delivered before the Medical Class of the University of the city of New York, at the Session of 1844-5; by Martyn Paine, A. M., M.D., Professor in the University of the City of New York, &c. &c. Fourth edition. Printed for the Medical Class, 1844-5.

It does not fall within the scope of our objects, to give extended notices of Introductory Medical Lectures, else we should be tempted to quote pretty largely from the one above noticed. It is a masterly exposé of the absurdities and contradictions of those writers, who advocate exclusively the chemical doctrines of life, or chemico-physiology, and who deny, if not the existence, at least the influence of vitality upon the animal organism. These efforts of some of the philosophers of the day, to confound the science of life with the science of chemistry, need some such curbing restraints as are set forth in this lecture. The writer brings his battery of argument and wit to bear upon the chemical hypothesis of digestion, with a force and felicity that cannot fail of being felt by those who have fairly exposed themselves to such unchristian punishment. Whether the individuals named in the indictment will meekly submit to such castigation, and endeavor to profit by it, or plucking up a more warlike spirit, carry the war into Africa, remains to be seen. To us, who occupy neutral territory, or, as the author would say, belong to the "*in-medio-tutissimus-ibis*" *school*, such a controversy can be looked at with an impartial eye, and victory awarded, without undue bias or prejudice.

Art. XXIV.—*Vestiges of the Natural History of Creation.* New York: Wiley & Putnam, 12mo., pp. 291; 1845.

This work, recently published in England, has already passed through several editions, and is getting a wide circulation in this country. It is said to have been written by a distinguished member of the British Parliament, who is an *amateur* in scientific matters. This will account for many inaccuracies, perhaps in purely scientific and professional details, although it is written with great elegance, and an apparent comprehension of the whole subjects of Astronomy, Geology, Physiology, &c. &c.

It is a work, however, of extraordinary merit; calculated to enlarge our views, both of the visible and invisible works of creation, and furnish food for contemplation of the noblest and most gratifying kind. We have not space to enter upon an analysis of its contents, and we therefore can only advise our readers to purchase the work, for they will find themselves well rewarded by its perusal.

Art. XXV.—*Medical Topography of Brazil and Paraguay, with incidental remarks.* By G. R. B. Horner, M.D., Surgeon, U. S. N. Phil. 1845, 8vo., pp. 296.

This is a very entertaining and instructive book, which the author has compiled from private and public journals kept by himself during two cruises, in the form of a diary; we should be pleased to make copious extracts, descriptive of the animal and vegetable productions of Brazil, its medical schools, hospitals, physicians, diseases, &c., did our limits permit; we hope to be able to do this, however, in our next number. Dr. Horner is too well known as the author of a similar work on the climate, diseases, public institutions, &c., of the countries bordering on the Mediterranean, to need any praise at our hands. We wish that other surgeons in the U. S. Navy would follow his example, and give us the results of their observation in different quarters of the globe, for the benefit of us stay-at-home travellers; in that case, we should doubtless be better contented with our lot, and less envious of the advantages enjoyed by the surgeons of our frigates and seventy-fours. Next to visiting in person, the countries and places described by Dr. Horner, commend us to the pleasure of reading a description of them in his own words.

ART. XXVI.—*A Treatise on the Diseases and Special Hygiene of Females*. By COLOMBAT DE L'ISERE. Translated from the French, with additions, by CHARLES D. MEIGS, M.D., Prof. of Midwifery in Jefferson Medical College, &c. &c.; with wood-cut illustrations. Phil.: Lea and Blanchard. 1845. 8vo, pp. 714.

WE have received this work at too late a period to notice it as it deserves. From a hasty perusal, however, we are satisfied it is destined to take the front rank in this department of medical science. It is beyond all comparison, the most learned Treatise on the Diseases of Females, that has ever been written, there being more than one thousand distinct authorities quoted and collected by the indefatigable author. It is in fact a complete exposition of the opinions and practical methods of all the celebrated practitioners of ancient and modern times. The author has enjoyed distinguished advantages, as Resident Surgeon of the *Maison de Santé*, of the *Rue de Valois du Roule*, which is specially appropriated to the medico-chirurgical treatment of the diseases of women; and is well known in Paris as author of a memoir on Disorders of the Womb and its Appendages.

The Editor and Translator has performed his part in a manner hardly to be surpassed. The translation is faithful to the original, and yet elegant. More than one hundred pages of original matter have been incorporated in the text, constituting nearly a seventh part of the whole volume. In our next number we propose to give some account of its contents.

PART THIRD.

1.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

1. *On the Reflex Function of the Brain.* By T. Laycock, M.D., Physician to the New York Dispensary, &c.—[Read at York, before the Medical Section of the British Association for the Advancement of Science, on 28th September, 1844.]

Since it has been generally acknowledged that the brain is the organ of mind, the study of its physiology or laws of action has acquired a surpassing interest, for whatever men do, in the most comprehensive sense, is connected with its functions. It is, however, as elucidating the nature and treatment of insanity, that its physiology is most interesting to the physician.

A knowledge of the laws and mode of action of this important organ can only be acquired by scientific observation and induction, and it is encouraging and pleasing to know that the multitude and variety of facts from which inductions may be made are proportionate to the difficulties to be overcome. I am not alluding to mental philosophy, but to the advances already accomplished in comparative physiology, which show us that the structure and functions of the nervous system in all animals are subject to the same laws of development and action; that a continuous and harmonious whole is formed out of the multitudinous and disjected parts; and that varied and dissimilar as they appear, each may be made to illustrate the other.

Four years have elapsed since I published my opinion, supported by such arguments as I could then state, that the brain, although the organ of consciousness, was subject to the laws of reflex action, and that in this respect it did not differ from the other ganglia of the nervous system. I was led to this opinion by the general principle, that the ganglia within the cranium being a continuation of the spinal cord, must necessarily be regulated as to their reaction on external agencies by laws identical with those governing the functions of the spinal ganglia and their analogues in the lower animals. And I was confirmed in this opinion by finding, after the investigation and collocation of known facts, that observations and arguments like those satisfactorily adduced in proof of the existence of the reflex function of the spinal ganglia, may be brought forward in proof that the cerebral ganglia have similar endowments. In the present paper I purpose to give these proofs connectedly. I must premise, however, that I entered upon my undertaking with considerable hesitation. I felt deeply the magnitude of the subject, and the important results to which an inquiry of this kind might lead. I felt, too, that in advocating the doctrine of cerebral reflex function, I was opposing the opinions of a physiologist to whom deference is eminently due. That gentleman, however, is so devoted to all questions of neurology, and so anxious, I really believe, to arrive at truth, that he, I hope, will willingly permit me to differ from him in doctrine, and give a favorable consideration to my opinions, although opposed to his own.

To render my subsequent arguments clearer, I will first give a short summary of the doctrine of reflex action, as at present received. I need scarcely state that the spinal cord in the vertebrata is a series of ganglia analogous to those of the articulata. If a centipede be divided into several parts, each segment will move on an external stimulus being applied; if it be decapitated, and the respiratory orifices on one side of the body be irritated by an acrid vapor, it will immediately flex the trunk to the opposite side; if the Geophilus electricus be cut into two pieces, each segment will live and appear vigorous for a fortnight, the caudal portion surviving the cephalic for two or three days. Cold-blooded vertebrates display those involuntary motions very strikingly; thousands of unfortunate frogs have fallen victims to the zeal of physiologists in researches of this kind. If the brain, the organ of consciousness, be removed from a frog by decapitation, it will still attempt to escape when pinched or otherwise injured, and will perform motions, which, if the brain had not been removed, could only have been supposed to be the result of sensation and volition. Indeed it has been inferred from these facts, that the spinal cord, as well as the brain, is endowed with consciousness. It is found, however, that *segments* of the spinal cord possess a similar function. If that portion of the spinal axis of a frog which gives origin to the brachial nerves be separated both anteriorly and posteriorly from the whole cord, so as to be completely isolated, on stimulating the skin covering the fore-legs, retraction of the limb irritated and similar reflex movements take place. There can be no doubt, in fact, that each ganglion constitutes the centre of a nervous arc, of which the motor and sensitive nerves in connexion with it are the two limbs. An impression is made on the peripheral termination of a sensitive nerve; this impression is transmittted to the ganglion as the central axis; there some change, the nature of which is unknown, takes place, but such, that the muscles in connexion with the motor nerves arising from the ganglion are moved. Dr. Hall has termed the sensitive, or afferent, or impression-bearing-nerve, incident excitor nerve; and the central axes form collectively the true spinal system, extending from the corpora quadrigemina to the cauda equina.

It is not necessary to reflex action that the irritation be applied exclusively to the peripheral termination of the sensitive or incident excitor nerve, although phenomena so induced, are the most strikingly and most perfectly reflex. The irritation may be applied in any portion of its course, or to the posterior grey matter of the cord (the sensory track) in which the nerve terminates, or to the anterior motor track, or to the cut end of that portion of the motor nerve still in connexion with the muscle. The track of the irritation is from the surface to the muscular fibre through the ganglia; if the continuity of nervous connexion be broken, the irritation cannot reach the muscle.

Irritations may in their origin, therefore, be either peripheral, or derived from the surface; fibrillar, or seated in the trunk of the nerve; and central, or in the axis itself. These variations as to the point from which the irritation commences are connected with variations in the phenomena, and enabled Dr. Hall to arrange excito-motory actions into classes. In hydrophobia, the irritation is a poison circulating with the blood through the central axis; the disease is therefore termed centric, and the excito-motory phenomena are of centric origin; so also the convulsions (the excito-motory phenomena) of asphyxia are centric, because they depend on the circulation of venous blood, instead of arterial, through the spinal cord. The action of the respiratory muscles in sneezing induced by irritation of the schneiderian membrane is reflex, and so with a multitude of vital acts, all admirably elucidated by the law of reflex action.

Motor phenomena, when purely reflex, are of course altogether independent of sensation, or perception, or volition, or consciousness. The mind has no part whatever in their causation or course. A person may, however, be conscious of the reflex acts, and unconscious of the irritation which causes them, as in vomiting from renal irritation, or when the legs of paraplegic patients are jerked on irritating the soles; sensation may also accompany reflex phenomena and volition modify them. Thus, ipecacuan acting on the incident excitor nerves of the stomach will produce the reflex act of vomiting accompanied with the sensation of nausea; or tartar-emetic, circulating with the blood in the medulla oblongata, will induce like phenomena, differing only in being of centric origin, while the others are peripheral. If the soles of the feet be tickled, the legs jerk involuntarily and spasmodically by reflex action, but the sensation of tickling is also perceived. In these and similar instances, volition is often unable to restrain or even to modify the reflex acts. The resulting movements are strictly involuntary. I would particularly call attention to this fact as of some importance in understanding the nature of those reflex acts which I shall adduce as being of cerebral origin, for if any movements of this kind be shown to be strictly involuntary, they must necessarily be considered as reflex excited acts accompanied by sensation—acts which the patient is not merely mentally unwilling, but physically unable, to restrain or modify.

Another remarkable characteristic of reflex phenomena is the harmony of movement in the muscles excited into action by irritation traversing the incident excitor nerves, especially from the periphery. The object of all the purely reflex physiological acts is the conservation of the individual, or of the race. In the words of Dr. Hall, every physiological act of the reflex excito-motor power is obviously designed. If the mucous membrane or skin be irritated, the muscles combine to remove the irritation. This is seen in the two different acts of sneezing and coughing, and also in vomiting. When the tail of a decapitated tortoise is irritated, the hind feet are protruded towards the part, with the object apparently of removing the irritation; if the caudal portion of a bisected scolopendra be irritated, it is immediately erected, and the usual threatening position of the creature when irritated, is assumed. From numerous experiments, especially those of Van Deen and Stilling, it is certain, not only that these acts are independent of the will, but dependent on a special arrangement of the constituent fibrils of the spinal cord. According to Stilling, the posterior grey matter is the portion of the spinal ganglia, on and through which the incident excitor impressions impinge and are diffused; the anterior grey matter, the part in which the necessary arrangements for the harmonious action of the muscles are perfected. These facts are of importance to be remembered in defining the cerebral reflex phenomena, and indeed, in detecting the modus operandi of the encephalon as the organ of mind. I have already shown how certain strictly involuntary movements are partly reflex: here we learn how certain strictly instinctive acts may be purely reflex, even when coincident with consciousness.

Another circumstance connected with the purely reflex acts, is that their continued performance is unaccompanied by fatigue. I do not attach much importance to this circumstance, except as proving that volition is closely connected with muscular sensation, but it will have its use in elucidating reflex cerebral phenomena. This incapacity of fatigue is shown in the respiratory muscles; and in the long migratory flights which the instinct of birds compels them to take, as ingeniously suggested by Dr. Hall.

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

2.—*Mal-assimilation of the Saccharine Element—Sugar.*—The appearance of this principle in the urine is always a very formidable symptom, and from its sensible characters cannot long exist without detection. Its chemical and general qualities differ in a very striking manner from urine, in health, as might, *à priori*, be expected; it is light colored and very transparent, of a greenish or pale straw color perhaps more correctly, and on standing deposits no inconsiderable amount of organic matter. Its smell is very peculiar; according to Dr. Prout, it is that of sweet hay or milk, but it is, perhaps, more a smell, *sui generis*, which cannot be mistaken when once perceived, but which certainly is not that of new hay; it is, perhaps, as suggested by Dr. Watson, more like that of apples, or rather a musty apple chamber; the specific gravity of the urine is very considerably augmented. Some difference of opinion exists as to the proportional amount of urea in the excretion. The earlier observers would lead us to think it was nearly altogether absent, and that sugar was formed at the expense of the principles employed in the formation of urea. Chemistry, however, now tells us that such a change is not at all probable, and later experience comes to corroborate the fact, the urea existing, according to Dr. Kane, in its normal amount, in the same relative amount in the twenty-four hours, but as might be expected from the immense quantity of water present, the absolute amount in a given quantity of the excretion is diminished; the same remark applies to the various saline ingredients, the amount of sugar merely concealing these and the urea. The quantity of the excretion voided in the twenty-four hours is often such as almost to exceed belief, much more at least than could be supplied by the amount of fluids used in the same period. About forty pints, or even more, is a not unusual modicum of this fluid to be formed in the day, and cases have even been published where seventy pints, and perhaps more, were thrown out in the twenty-four hours!

Chemical properties aud modes of detection.—The sugar held in solution, in diabetic urine, may readily be obtained by evaporation, and every museum presents specimens of this unnatural product of the human economy; it differs from cane sugar, somewhat more nearly approaching that of grape sugar; it may be obtained by evaporating the urine slowly in a steam bath to half, then setting it aside for some days in shallow saucers, when a regular deposit of crystals will be formed.

From the directions given in a previous part of this essay respecting the modes of ascertaining the exact amount of solid matters from the system passed in the day, we can ascertain the immense quantity of sugar formed in the laboratory of the system; the average specific gravity of this variety of urine is about 1.040, and taking the quantity of urine passed as twenty pints, the patient will have voided the immense amount of about thirty-two ounces of solid materials in the twenty-four hours. It is quite obvious that such a drain as this on the system, otherwise enfeebled by the derangement, will bring the patient to the last degree of emaciation.

The saccharine principle in this disease would seem to be formed in the secondary assimilating process, according to Dr. Prout's views. Sugar has been eagerly sought in the blood, and it is only lately that it has been ascertained to exist in that fluid. It is to Mr. M'Gregor of Glasgow, whose able researches are before the medical public, that we owe this fact.

Having coagulated the serum of the blood by heat, he carefully dried it, next cut the dried mass into pieces, and boiled them in distilled water, and evaporated the solution to a certain point; he next added some ferment, which readily produced the usual change—the formation of alcohol.

By means of emetics he obtained the digested food from the stomachs of two men who had dined two or three hours previously. One individual was in a state of health; the other the victim of diabetes. On applying the test he found the vomited matters of the diabetic individual fermented strongly.

He next fed two individuals, one in health, the other diabetic, with beef and water, and nothing else, for some days. The contents of their stomachs were examined under similar circumstances. Those of the healthy man showed no signs of fermentation, while the contents of the stomach of the diabetic patient betrayed evident signs of fermentation.

These researches, which it would be well to repeat, as perhaps they are not of that rigidly exact kind that Mr. M'Gregor himself would wish, we hope he will prosecute. His examination of the saliva, fæces, and perspiration, is also worthy of a renewed trial, as the subject is one of intense interest.

Causes.—The causes of this melancholy affection are hidden in much obscurity; it is sometimes hereditary, and is much liable to be called into existence by intemperance, severe evacuations, excessive labor, with bad acescent diet. Distress of mind and anxiety are also among the sad catalogue of causes of a predisposing kind; and exposure to cold, the fertile source of so many urinary derangements, is perhaps not less efficient in sometimes lighting the train that has been laid by other causes.

Treatment.—Here we would fain put an end to doubt, and lay down strict rules for the curing of this sad affection, but we fear uncertainty even here dogs our pen. Dr. Prout, our greatest authority, and to whom the profession owe a meed of gratitude which they can scarcely repay, tells us that he has known two, perhaps only one case of this malady, cured, in his vast experience. Apparent cures sometimes do take place, but they are not to mislead. At the same time, in the apposite words of Dr. Watson, "it is better to keep a man on the edge of a precipice, if you cannot pluck him away from it, than to let him fall over," and many patients are kept in this predicament of dangerous safety.

There are three objects to be kept in view in the treatment of diabetes, according to the able remarks of the same eminent physician :—

1st. To restore the defective power of the digestive apparatus.

2ndly. To cut off, or restrict as much as possible, the supply of saccharine matter from without.

3rdly. To mitigate or remove the most distressing symptoms.

If we perhaps now say that the first and second indications are to be affected by a rigid adherence to animal diet, with occasional use of cruciferous vegetables, and that the third is to be achieved by a free use of opium, we shall say all that is really useful.

Creosote has been lately tried—indeed we have tried it ourselves; but, like every other much praised remedy, we fear its pretensions as a means of cure are too high. The proper use of aperients—castor oil, rhubarb, aloes, and senna, will avail in some stages of the disease; but everything in this way must be left to the discretion of the well-educated practitioner.

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3. *Treatment of Erysipelas with Ointment of Nitrate of Silver.*—M. JOBERT employs this remedy as follows :—He surrounds the erysipelatous surface with nitrate of silver ointment, and the inflammation soon disappears. The parts selected are anointed with a small portion of the ointment, at distances of a few centimetres, each spot being the size of a dollar, and these covered with blotting paper. A simple eruption results, but never an eschar. The ointment is prepared of three degrees of strength; the first contains 4 parts of the salt, the second 8, and the third 12 to 30 parts of lard.—*Annales de Thérapeutique.*

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4. *On the Administration of Purgatives by the Endermic Method.*—In many acute and chronic diseases, intense constipation exists; purgatives given are immediately rejected, and enemas cannot penetrate, whilst manual operations are useless when the fæces are contained in the colon. In these cases, Dr. Salgues proposes sprinkling different purgative powders on the skin, deprived of its epidermis by means of a blister, and quotes several cases, in which evacuations were thus obtained. The conclusions to which he has been led by experience are: that in many cases the practitioner may have recourse to purgatives by the endermic method, to overcome constipation, which may give rise to serious, if not fatal, accidents; that colocynth is more powerful, and ought to be preferred (dose from grs. v. to grs. x.); aloes is not so efficacious (dose from grs. viij. to grs. xv.); that when the purgative does not produce the evacuation of the retained fæces, it may cause irritation, or hæmorrhages of the stomach or intestines, and sometimes even an excitation of the whole system; that, as by this method only drastic purgatives can be employed, they are counter-indicated whenever any latent or ardent phlegmasia exists; that they must be discontinued when their application is not followed by evacuations; that when the purgative does not cause the symptom, against which it is directed, to yield, it acts as a perturbator, and if it has not an advantageous action on the primitive disease, it may produce serious accidents; consequently, the abdominial organs must be attentively examined ere it is prescribed.—*Revue Medicale de Dijon.*

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5. *Depuration of the Blood*—Dr. Barlow, in a paper, read before the Physical Society of Guy's, states that he conceives the depuration of the blood to be wholly effected by the two-fold agency of air and water. The atmospheric air acting through the medium of the pulmonary circulation, removes, in the form of carbonic acid, the carbon which has been formed in the capillaries of the aortic circulation, and which would act as a poison if returned to the left side of the heart, and again transmitted through the system. The water acts through the medium of the portal circulation, by the capillaries of which it is taken up from the stomach and small intestine, and is employed for the purpose of holding in solution the solid contents of the bile, the urine, and the perspiration, preparatory to their elimination by their respective secreting organs, and without which these solid contents cannot be separated from the body, unless they are brought to the emunctories in a state of solution. These views he supported by references to the

symptoms, pathology, and effects of remedies employed in cardiac, hepatic, and renal disease, and also to dropsical effusion in the cavity of the peritoneum, and to the symptoms and state of the blood in Asiatic cholera: Dr. Barlow dwelling particularly on the impossibility of procuring diuresis, when disease of the liver has proceeded so far as materially to obstruct the entrances of water from the small intestine into the portal circulation.

6. *Croton Oil in Dropsy.*—Dr. Fife has narrated in the *Provincial Medical Journal*, several cases of ascites, originating from or complicated with, organic lesions, in treating which he derived great benefit from the sustained exhibition of croton oil, which, he observes, possesses one very decided advantage over elaterium, that even when its extreme action is manifested, it is not followed by the depression inseparable from the effective action of the latter; but that where the greatest *vis inertiæ* has prevailed, accompanied by absolute incapacity for exertion, a sensible amelioration in these respects has followed its continued exhibition.

7. *Emplastrum Oxycroceum.*—This plaster is frequently employed by country people, in luxations, swellings, rheumatic complaints, &c. According to the original recipe, it is supposed to have consisted of seven per cent. of saffron, with galbanum, gum ammoniac, myrrh, frankincense, mastich, turpentine, pitch, colophonia, and wax. Many attempts have been made of late to simplify the plaster, but several of its good qualities were in consequence lost. The author states, that, by the following prescription, a good plaster may be obtained, which will admit of being spread with facility. It must be moderately stirred in the vessel, till it becomes cool, in order to cause the appearance of the proper red color.

℞ Colophon. lb. j.
Cer. flav. lb. ss.
Axung. porc. ℥ iiss.
Terebinth. commun. ℥ iiss.
Galbani depurati.
Gum. ammon. depur. aa. ℥ iss.
Bol. armen. pulv.
Lign. santal. rubr. subtiliss. pulv.
Croci opt. pulv. aa. ℥ ss.

Colophonio cum cera et axungia liquato, adde in terebinthina solutum galbanum et ammoniacum postremo crocum cum bolo et ligno santali.—*Jahn in Buchner's Repertorium.*

Professor Buchner remarks, that he entertains no doubt of the efficacy of the above plaster, but he cannot see the utility of the addition of the bole and saunders-wood, for the sole purpose of dyeing the composition, without their exerting the least influence on its remedial action.

PATHOLOGICAL, THERAPEUTICAL AND OPERATIVE SURGERY.

8. *Case of Fungus from the Synovial Capsule of the Knee*, under the care of M. Gerdy, of the Hôpital de la Charité, treated by compression.—The subject of this case is a young man, aged 30, of a lymphatic and deteriorated constitution. On the internal surface of the knee there is an ulcer of the size of the palm of the hand, from whose base has sprung an ill-conditioned fungus of the size of half an orange, and which, according to M. Gerdy, originates from the external surface of the synovial capsule, and has no communication with the joint. The articular movements are quite free, and cause no discharge of pus, as would be the case if the disease communicated with the synovial cavity. In M. Gerdy's opinion this is the best test that can be employed for the purpose of ascertaining if a tumor containing fluid, and which has been opened, communicates with the neighboring articulation or not. The patient has an affection of the same nature on the dorsal surface of the wrist. The fungus neither ap-

pears cancerous, nor has any tendency to bleed: at the knee, as well as at the wrist, it is composed of an enormous number of granulations of the size of a nut, having a greyish color, and of a soft dirty aspect, and yielding a large quantity of fetid pus. The means employed by M. Gerdy for the treatment of this affection are, compression by means of strips of adhesive plaster, and under the influence of these, and rest, the disease is improving. M. Gerdy has met with one other case of this rare disease; it was situate at the elbow-joint, and occurred in an individual in whom he had amputated the leg, but who refused to submit to the loss of his arm: it was treated by compression, and a cure followed, but there was anchylosis of the joint.

In a pathological point of view, this is a rare affection; indeed, it is the first time we have met with it. An attentive examination of the joint leads to the idea that there is hypertrophy of the whole synovial capsule, with tendency to fungus from its external surface. It appears to us that the affection may be compared to certain non-cancerous fungi which occur on the mucous membrane of the alveolar processes, and which have been denominated epuli. Its co-existence at the knee and wrist at one and the same time, and the deteriorated state of the constitution, would lead us to suspect that it originates from some peculiar diathesis. There are, however, no distinct signs of scrofula, although the patient has a pale cachectic look; but this appearance is, perhaps, an effect of the local disease itself. However this may be, M. Gerdy has commenced the treatment by compression, to which he proposes to add the internal use of the iodide of potassium. A marked diminution in the size of the vegetation has already taken place, under the use of the compression alone.—*Annales de Thérapeutique*, Sept., 1844.

9. *Urethroplastie.*—M. Jobert (de Lamballe) communicated an interesting case of urethroplastie. The patient, aged 36, was admitted into the Hôpital St. Louis early in June, in the present year, affected with extensive extravasation of urine, which terminated in several abscesses, coupled with gangrene of the entire left side of the scrotum, of a limited portion of the perineum, of the groin, and of the lower surface of the penis. The integuments and canal of the urethra were destroyed to the extent of three inches. The cause of the extravasation was stricture of the urethra and rupture of the canal during a violent effort to expel the urine. M. Jobert having first remedied the extravasation by suitable incisions, and allowed sufficient time to elapse for restoration of the general health, and for the tissues to contract, proceeded to repair the urethra in the following manner:—He divided the operation into two periods! he first refreshed the edges of the loss of substance in the perineum and in the groin, and immediately united them by several points of interrupted suture. The reunion of those parts being obtained, he allowed it to become consolidated before he attempted to repair the breach in the urethra. For this latter purpose he refreshed the entire circumference of the opening in the urethra, and then cut the flap from the right side of the scrotum, dissecting carefully, so as to avoid implicating the testicle; this flap being insufficient, be carried the incision to the dorsum of the penis, and made a flap which was continuous with the first; having thus obtained a sufficient quantity of skin to cover the breach in the urethra, he united it to its borders by ten points of suture, supporting each point of suture by a piece of agaric placed under it, in order to delay its cutting out, and so allow sufficient time for union by the first intention to be effected. A small gum-elastic catheter was left in the urethra until the cure was completed. The patient now passed water in a stream much fuller than he could previous to his admission to the hospital. The contraction of the cicatrix has drawn the testicle towards the ring, and the penis is slightly curved.—*Dublin Medical Press.*

10. *On Enterotomia in a case of obliteration of the small intestine: by Dr. Maisonneuve.*—In this memoir the author passes in review: 1st, the different species and varieties of obliteration of the small intestines, which are of three kinds, according to their causes:—*a*, those seated in the interior of the intestinal canal, by which its calibre is diminished:—*b*, those situated in the membranes

of the intestines causing stricture:—*c*, those which act mechanically on the parietes of the intestine, obliterating it by the pressure it exercises. From thence, three classes may be established, and called: obliteration by obstruction—obliteration by stricture—obliteration by strangulation. 1st, *Obliteration by obstruction* may be produced by foreign bodies, such as a cherry (Denonvilliers), a biliary calculus, a fæcal tumor, by invagination:—2d, *Obliteration by Stricture.*—It is congenital or may be caused by a strong constriction of the intestinal tunics, by wounds, contusions, ulcerations, various degenerescences. Is primitive or consecutive;—the former is produced by the adherence of the opposite walls: the obliteration is then complete, but generally it depends on a puckering or swelling, or ulceration of the membranes, occurring in hernia, reduced by taxis, though far oftener in those which need the operation:—the latter where, in strangulated hernia, the parts are reduced, and the passage of the fæces re-established, but after a week or two they stop again, owing to the diminution of the intestine produced by the cicatrix resulting from ulceration:—3d, *Obliteration by Strangulation.* Several cases of strangulation, produced by internal hernias (diaphragmatic, ischiatic, obturator) or by abnormal adherences, are here quoted. The author next enumerates the symptoms, describes the diagnosis and most efficient mode of treatment, and finally concludes:—1st, that the numerous varieties of obliteration of the small intestines can no longer be considered as beyond the resources of art:—2d, that enterotomia constitutes an efficacious mode of treatment;—3d, that it may be employed in cases which are not complicated by peritonitis:—4th, that this operation ought to be placed beside that for strangulated hernia, and enterotomia of the large intestine.—*The Medical Times, December* 14, 1844.

OBSTETRICS AND DISEASES OF FEMALES.

11. *Corpora Lutea.*—A paper by M. Raciborski, "On the nature of the Corpora Lutea, and the differences which they present in their appearance, according as the expulsion of the ovum has or has not been followed by conception," has been lately read before the Academy of Medicine in Paris. It is summed up under the following heads:—

1st. The corpora lutea are the result of an actual hypertrophy of the granular layer, which covers the internal membrane of the Graafian vesicles. The anatomical elements of these two parts are absolutely alike, only the granulations of the corpora lutea are much more numerous, and inclose more oily globules of a yellow color.

2d. The transformation of the inner coat into a corpus luteum, commences before the rupture of the vesicles, at the time when these latter are preparing to give passage to the ovulum.

3d. As soon as the Graafian vesicles are ruptured, the transformation of the inner membrane into a corpus luteum acquires a remarkable activity. But there are here two important differences to establish, according as the expulsion of the ovulum has been spontaneous, which happens after each menstrual period, or after the rutting season, or as it is coincident with sexual connection, followed by conception.

In most female domestic animals, such as the sow, the cow, the ewe, and others, this difference does not exist. Whether they have had sexual intercourse or not, the expulsion of the ovulum is always followed by the formation of corpora lutea, represented by fleshy masses of a yellowish or reddish color. But it is not so in woman. If the expulsion of the ovulum has not been followed by conception, as happens, for instance, after each menstrual period, then the granulations increase both in number and in size; but this activity of nutrition is soon arrested in the shape of a delicate membrane of a more or less marked yellow, glued to the one peculiar to the vesicles, and in the cavity which surrounds it traces of a clot of blood may always be seen. If, on the contrary, the expulsion of the ovulum is coincident with conception, the elements of the granular coat increase so much in size and number, that, in a little time, they form a very large mass, filling the whole cavity of the vesicles.

4th. In all women whose accouchements are true to time, may be found a yellow body, such as we have just described. But the most remarkable point is the rapidity with which they decrease and become atrophied after the expulsion of the fœtus.

5th. It consequently results from the preceding propositions, that in woman it is very easy to distinguish, by inspection alone, the cases of spontaneous expulsion of ovula, from cases where the expulsion has been followed by conception.—*Gazette Médicale de Paris.*

12. *Report of Midwifery Cases Occurring in Private Practice.—By Kenrick Watson, Esq., F.R.C.S., Stourport.*—The following is the result of 800 cases of Midwifery, of which I kept an account during a period of eighteen years:—

Premature labors,	12
Twin cases,	18
Face presentations,	14
Breech ditto,	11
Presentations of arms, &c.	11
Dangerous flooding,	17
Convulsions during labor,	3
Ditto after birth of the child,	1
Rupture of the vagina,	3
Ditto of an artery in the labia pudendi,	1
Cases where it was necessary to open the head,	12
Severe flooding, after extraction of the placenta,	2
	105
Natural Labors,	695
	800

Of the premature births, several were occasioned by one or both parents being affected with syphilis.

In two cases in which the arm presented in the vagina, the placenta had been over the os uteri, but had been forced into the vagina by the protrusion of the arm. The flooding, in the first instance, in both cases, had been violent, but had ceased when the placenta was forced into the vagina. The women, in both cases, were strong and healthy, and the uterus strongly contracted round the body of the child.

Of the seventeen cases of severe flooding, fifteen arose from the adhesion of the placenta over the os uteri; and in two cases the placenta was not so situated, and the flooding ceased after the membranes were ruptured. Of the fifteen cases one died before I got to the house, and one soon after she was delivered. She had been flooding two or three days before I saw her. In these seventeen cases four children were saved.

In one of the cases, in which the head was opened, the woman was dropsical. She had been in labor many hours; the uterus was so thin that the limbs of the child could be distinguished by the touch through the parietes of the abdomen. The uterus was dilated, the head was large, and the bones detached. After the head was punctured, about a quart of fluid was discharged, as the bones were so loose that they afforded no hold to the crotchet. I passed my hand by its side, and brought down the feet. No contraction of the uterus followed; the re-introduction of my hand produced no effect, the uterus continued like an empty bag, with the placenta attached to its fundus. I gave her brandy and ammonia, poured cold water on the abdomen, and then injected cold water into the uterus without the least effect. I then applied a thick compress upon the abdomen, and a flannel roller round the body. There was no discharge of blood at the termination of two hours. I left her in the charge of her medical attendant, and in the course of the night she died.

The case in which a rupture of the labial artery took place, was attended by a midwife. Two hours after delivery, she complained of pain and swelling of the right labium, bearing-down, and discharge of blood from the rectum. She died on the third day. Upon examination, thirty hours after death, the perineum and surrounding parts were found injected with blood; the integuments of the abdomen emphysematous, a cavity in the labium lined with coagulated blood, and communicating with the rectum, through a laceration about half an inch in extent.

In two cases the placenta was diseased. In one, the maternal part was left firmly adhering; great irritative fever supervened, with very offensive discharges, but by injections into the uterus, bark and acids, the woman, who was nearly fifty, recovered. In the other, a discharge of water took place in the fourth month, and continued to recur from time to time till the seventh month, when labor commenced. At this time the uterine tumor was divided into two parts. When the os uteri was sufficiently dilated, I passed my hand and found the fœtus, with the membranes entire, occupying one half of the uterus, and the placenta and a quantity of grumous blood, the other half. So far as I could ascertain, the putrid mass was formed by blood and hydatids. The woman recovered.

In one case there was a knot on the umbilical cord, and in another, a rupture of the umbilical artery. In a third case, the child was apparently seized with convulsions before labor commenced, and died. The woman when at work, ironing, in a very hot room, became faint from the violent motion of the child; it shortly became still, and never moved again. She was delivered on the fourth day afterwards, and the child was in a state of decomposition.

Several cases required the use of the lever or the forceps, and in no case, unless the death of the child was evident, was the head opened till one or other of them had been tried.

Out of the 800 cases seven proved fatal,—three from rupture of the vagina; two from flooding; one from rupture of an artery in the labia pudendi; and one, in which the head was opened and the child putrid, where peritonitis had either preceded, or occurred during, labor.—*Provincial Med. & Surg. Journal, Dec.* 4, 1844.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

13. *Post-mortem Examination.—Death by Prussic Acid.*—Mr. Nordblad of Slough, in the *Medical Gazette*, details the particulars of the post-mortem examination in this case, which, from its peculiarities, has excited a good deal of attention.

The deceased was 41 years of age; the body was lying on the floor as she died; the left stocking was half down the leg; no shoes on the feet, or cap on the head. The shoes and cap were on the opposite side of the room when the body was found. The surface of the body was pale; extremities rigid; a little animal heat still existed in the fleshy part of the thighs (the examination was made eighteen hours after death); the countenance had a calm expression; the pupils were half-fully dilated; there was no odor about the body, but the usual cadaverous smell; there were no marks of violence upon the body; menstruation was going on at the time of death.

The contents of the thorax and abdomen, the larynx, trachea, and pharynx, were healthy; the heart was full of blood on the right side. There was no odor differing from that of an ordinary dead body in the thorax or abdomen; the closest possible attention was paid to this point. The veins of the ovaria, fallopian tubes, and uterus, were very full of blood; the bladder was empty but flaccid; the uterus was somewhat increased in volume; its interior contained sanguineous secretion and mucus; it was not impregnated. The external genital organs were free from injury, and there was no appearance of connection having recently taken place.

The stomach contained rather more than half a pint of pulpy contents, consisting of chyme, with a few shreds of coarse beef, and some portions of apple. The whole had an intensely sour smell, exactly resembling that of food rejected an hour or two after the commencement of digestion from a disordered stomach, but there was no odor that could possibly be considered in any respect like prussic acid.

The venous system of the brain was filled with black and fluid blood; no effusion, abscess, or tumor was found in any part. The vertebræ were all sound. "The sudden manner of death in this case, and absence of the characteristic smell of prussic acid, naturally led to the inference that if any poison had been taken, it would prove to be oxalic acid; the usual tests were therefore tried for this poison, but with negative results; and the same may be said of all the ordinary mineral and acid poisons. But prussic acid was unequivocally proved by chemical analysis to be present, and in considerable quantity. The processes followed in this investigation will be given at the proper time."

"14. *Case of Poisoning by the Berries of Daphne Mezereum, at Lomnitz.*—The berries of daphne mezereum are used, hereabouts, as a domestic purgative, taking 5 or 6 for a dose. But, on account of obstinate constipation, a peasant took 40. Soon after frequent and violent vomiting ensued, and almost uninterrupted pituitous stools, mixed with blood, and causing excruciating pains. The head was dull and giddy; the face shrunken and cold; the pupil dilated, and vision obstructed. Extreme thirst; burning pain felt from the throat to the stomach; violent colic. Voice altered, trembling; respiration short and difficult; pulse frequent, irregular, hard, and cord-like; urine dark; extremities cold; skin dripping with perspiration. Venesection and leeches, warm fomentations on the abdomen, and cold fomentations to the head; mustard poultices, clysters, emulsions, &c., improved the state of the patient, but, nevertheless, his recovery is excessively doubtful.—*Oesterr. Medic.—Wochenschrift.*

15. *Two Cases of Poisoning by Belladonna.*—First: a boy, 5 years of age, at Grieskirchen, fell ill soon after having eaten a few ripe berries of a belladonna-shrub. He vomited several times, and died on the following morning, at 7 o'clock, under an attack of convulsions. No medical aid had been sought. The half-opened eyes had a peculiar, dazzling, splendor; the pupils were enlarged; the mouth spasmodically closed; the anus open. The vessels of the cerebral membranes were distended with thick, black blood. Around the pharynx and œsophagus, several red spots were found. In the stomach, there were three half-opened berries of belladonna; dark-purple spots on its sides.

Second: the other patient was a peasant, 34 years of age, who, for the purpose of allaying his thirst, ate a great quantity of ripe berries of belladonna, till he felt burning in the throat, and an overpowering giddiness. At seven o'clock in the evening, he was so delirious that he was obliged to be kept down by three strong men. His face was swollen; his eyes red and prominent, the pupils much dilated. Strong pulsation of the arteries of the head and throat. Pulse full, hard, and very frequent. Swallowing impossible. After a venesection of 15 ounces, the patient became calmer; he complained of pressure, and violent burning pain, in the stomach and throat; great dryness of the mouth, particularly on the tongue; swallowing still impossible; but, after cold fomentations had been applied to the head, and clysters of vinegar administered, the power of swallowing returned. An emetic caused the discharge of about 3 ounces of a violet-blue liquid. The patient lay in a state of stupor. Thirty leeches were applied to the temples and behind the ears; poultices were placed over the whole head; clysters of vinegar administered, and an emollient decoction ordered. After 3 hours, diarrhœa and vomiting appeared. The determination of blood towards the head gradually diminished; consciousness returned; and the patient recovered, notwithstanding his having eaten, at least, 50 berries.—*Rosenberger, ibidem.*"

2.

American Medical Intelligence.

Surgical Operation in the "Mesmeric Sleep," by Dr. Bodinier.—We purpose in our next number to say something on the subject of *Mesmerism*, and especially of operations during what is called the "Mesmeric Sleep." Our readers have learned through the public prints that such an operation is alleged to have been recently performed by Dr. J. V. Bodinier, late of Paris, on a female in Chambers street, the operation consisting of the removal of a small tumor from the neck, behind the angle of the jaw. Dr. A. S. Doane who has reported the case in the Boston Med. and Surg. Journal, states that the patient, a female of 22 years, with dark brown hair and dark eyes, at twenty-five minutes past eleven, when he visited her, seemed quite bright and disposed to talk ; at half-past eleven, Dr. B. commenced his *magnetic passes*, when in five minutes, her eye-lids drooped, and in ten minutes she sank into a profound slumber, the respiration and the pulse being natural. At half-past one the operation was performed by Dr. B. in the presence of Drs. Mott, Kearney Rodgers, Delafield, Nelson, Taylor, Parmly, Doane, etc. The tumor was of the size of a "pullet's egg," and its removal occupied two and a half minutes. The patient is said to have "slept profoundly" during the whole of it, there being "no contortion of face, no quickening of respiration, no motion of the head or hands, but she seemed in a placid and tranquil slumber." The patient was allowed to sleep till a quarter past four, when she was roused, and to the inquiry "how she felt," replied, "rather tired, her limbs ached." She was asked if she had suffered any pain during her sleep," when she answered, "no." "Whether she had been cut,"—"No," and said "the operation was to be performed next day."

As this operation has excited considerable discussion among the faculty and others in this city, we have endeavored to ascertain all the facts in the case, for our own satisfaction at least, if they should subserve no other purpose. Those present from whom we have solicited information, regard the operation as too trivial a one, to furnish a satisfactory test or proof of insensibility, although the patient *appeared to be* unconscious of pain. A difference of opinion prevails, as to the fact of the patient being in a "mesmeric sleep," although it is acknowledged there was every appearance of her having been in this state. Without designing, at this time, to express any opinion upon the case, one way or the other, we may remark that we have often been struck with the apparent insensibility of patients during severe and undoubtedly painful operations, and are satisfied therefore that great caution is necessary in scrutinizing these alleged cases, especially where circumstances seem to indicate that a regard to private interests has been the paramount motive of the operator.

The following letters with which we have been favored, and which we are kindly permitted to publish, have a very important bearing on this whole subject, and will be read with great interest.

"*New York*, *Feb.* 14, 1845.

"Mr. Editor,

"Dear Sir,—In a letter of the 11th inst., addressed to myself, you desire me to state what I witnessed of the firmness of a young gentleman, upon whom the operation of exsection of the inferior maxillary bone was performed by Prof. Mott, 'and the reflections to which it gave rise, as bearing on the subject of alleged surgical operations without pain in the mesmeric state.'

"The case to which you refer is briefly reported in the January number of the New York Journal of Medicine, by some person, who, like myself, was present at the operation. The subject is there stated to have been 'a fine intelligent young man, whose *heroic deportment* greatly facilitated the operation.'

"Perhaps it is enough that I should have quoted the expressive language of one, who appears to have looked on with the same admiration as myself; though these examples of 'heroic deportment' are common enough in the walks of surgery, especially amongst females; and that, too, without mesmeric imposture. The same eminent surgeon, who operated in the case which is the subject of these remarks, will tell you that he has extirpated many breasts, rendered highly sensitive by carcinomatous disease, without observing any evidence of pain. But there was something in the case of Mr. Baker, which certainly better deserved the encomium of 'heroic,' than anything I had ever before seen, or heard of, or even imagined as within the compass of human fortitude.

"This case, therefore, is interesting at this moment, as evincing a perfect capability of enduring the most intense, and sudden, and prolonged pain, without emotion, and as forming a test by which 'the subject of alleged surgical operations without pain in the mesmeric state,' will receive the explanation which you seek.

"The case is also physiologically interesting, and interprets the composure of those organic movements, under similar conditions, which has been set forth in behalf of animal magnetism.

"To appreciate properly the 'heroic deportment' of young Baker, you must imagine yourself to have been a spectator; follow the able surgeon in all the capital steps, and in all the minor details of the operation, and watch attentively the 'deportment' of the subject. He was laid at a convenient elevation upon a table, his feet crossed upon each other, and his hands lapped. I mention this position, because he did not move his feet, nor displace his hands during the operation.

"Now observe the operator; first, making a long and deep incision amongst the muscles of the neck, and then tearing his way down to the carotid artery, and throwing and tying the ligature. It was, in itself, one of the most capital operations in surgery; but, owing to the dexterity with which it was performed, and with an operation still before us far more difficult, and tedious, and dangerous, this grand step towards the exsection of the jaw lost much of its usual interest to the spectator. But it was not the less painful to the sufferer; who, however, sustained it without betraying the slightest evidence of pain.

"Next came the circular incision, reaching all the way from the joint of the maxillary bone, down along its lower edge, up to the middle of the chin. This was done by one rapid, immense sweep of the knife; but there remained the same imperturbable composure of the patient. Not a sigh, not a groan escaped, no muscle moved,—the very eye did not wink. And then followed, as you may well suppose, a prolonged, tedious, painful dissection, in which it became necessary to exasperate the suffering by securing many bleeding vessels; till, finally, the operator was ready for his saw. But nothing had yet happened to elicit a single manifestation that the patient was not in a profound slumber, excepting that his eyes were open, and that he occasionally swallowed.

"But, before sawing the bone at the middle of the chin, it was necessary to remove one of the incisor teeth, and this was so firmly rooted that a straight forceps slipped in the hand of a capable assistant. Another pull, however, brought with it the tooth; but in neither attempt was there any more indication of suffering than in drawing a nail from a board.

"Then came the process of sawing, and this was calculated to greatly annoy the patient from a slight accident which happened to the saw, and which prolonged this part of the operation. Still, however, the same 'heroic deportment' distinguished the patient forbearance of the sufferer, the same unexampled complacency continued to mark every lineament of his face, his very eye displaying nothing but gentleness, softness, and calm resignation.

"The bone being separated at the chin, the dissection was resumed amongst the important parts, and though conducted with all possible skill and rapidity, it was necessarily tedious, as well as hopelessly painful, and therefore, still calculated to try the firmness of the stoutest heart. A great extent of all kinds of tissues were divided, and, of course, no small proportion of nerves. Bleeding vessels continued to be secured, the difficult division of the articulating ligaments performed with as much facility as its difficulties would admit; and after the removal of the jaw, remaining portions of diseased muscle, &c., were cut away, and which tended not a little to embarrass that 'heroic deportment' which had marked every stage of this great and triumphant operation. From its beginning to its ending, which occupied one hour and a half after the first incision till the final extirpation of all the diseased mass, the sufferer did not manifest the slightest evidence of pain, or of impatience, or of fatigue, either by language, gesture, expression of countenance, winking, groaning, sighing, or any other imaginable method by which the mesmerite might be disposed to evade the overwhelming rebuke which the recital of this case cannot fail to inflict on his love of the marvellous, or his love of mischief, or his yet more culpable designs on human credulity.

"I have said that there was something physiologically interesting in the foregoing case beyond its simple merit of an 'heroic deportment,' and that it goes to the very depths of mesmeric assurance and duplicity. It was this:

"On feeling the pulse of the patient twice during the operation (the last time after the lapse of an hour), I found it calm, undisturbed, and with about the same frequency it had before the operation was begun. This proves to us what I have before expressed, that it is not pain, but the consequent mental emotions which affect the organs of circulation, whether the heart or blood-vessels.

"Thus ended an operation, unequalled in the annals of surgery; alike triumphant to the surgeon, to American Genius, to the admirable subject, to the cause of truth, of morality, and of sound religion,

"If you desire it, you may publish the foregoing statement, to which I should add some comments had I not already contributed my part, in a medical work, towards the suppression of one of the greatest nuisances that has yet infected the moral and reflecting part of the community. I have, however, some developments in reserve, which will probably see the light when the parties interested may be beyond the reach of greater reproof or mortification.

"I remain, very truly, your friend and obedient servant,

"MARTYN PAINE."

"Mr. Editor.—*Dear Sir,*—You inquire whether I have ever seen patients, during painful operations, exhibit few or no symptoms of suffering. I have seen instances of the kind so often, that they have ceased to occasion any surprise. I will mention a few examples. During the last summer, I amputated a leg of a man upwards of fifty years of age, who had been suffering for a number of years from an enormous ulcer. He bore the operation with perfect composure, and stated at its close, that he had during the previous night suffered much more pain from the ulcer, than had been occasioned by the operation.

"During the last autumn I amputated an arm of a boy thirteen years of age, who was suffering from Tetanus, occasioned by fracture of the forearm. From the time when the amputating knife penetrated the flesh, until the close of the operation, there was no expression of suffering, and he remained as quiet as if he had been asleep.

"Within the last few weeks, I have performed a partial amputation of a man's foot, which was anchylosed in such a position as to prevent him from walking.

He bore the operation in such a manner, that if his eyes had been closed a believer in Mesmerism might readily have believed him to be asleep.

"About two years since, I burned a number of camphor moxas on the forearm of a young man nineteen years of age, on account of a paralytic affection of the muscles moving the hand. He sat on a chair, and held out his arm during the operation, with as much composure as if he had been a mere looker-on.

"A few years ago, Doctor Stevens performed at the New York Hospital a most painful operation on a lad sixteen years of age. His leg had been fractured a number of years before, and the bones had united at nearly a right angle, so that the limb was a mere incumbrance to him. Dr. S. cut down to the bones, insulated them from the soft parts, divided them with a saw and replaced them in their proper position. The operation lasted about an hour, and I suppose that the pain which was occasioned by it was equal to that of a dozen amputations. Yet the patient endured the whole operation not only in silence, but without any change in the expression of his countenance to indicate that he was suffering. The bones did not reunite: the patient remained in the hospital many months, during which the vigor of his constitution was much impaired by his continual sufferings and by the unsound condition of his limb. Finally the leg was amputated by Dr. Watson; and the patient bore the second operation with the same heroism as the first.

"I was present during the last spring at an operation which was performed by Dr. Watson, for the relief of stricture of the œsophagus. The operation involved a tedious and painful dissection among important vessels and nerves. The patient was a young man in a delicate state of health, and enfeebled by the long continued difficulty of deglutition and of consequent want of nourishment. During the whole operation, which lasted more than two hours, he was in a state of as perfect tranquillity as if he had been in a quiet sleep.

"I have seen other cases in which persons have endured operations with little or no expression of suffering, and if it were necessary, I could furnish the details. Those which I have above related were all in males. But it is well known that females even surpass males in fortitude, and that the patient endurance of suffering is a striking characteristic of their sex. I have had opportunities of observing painful surgical operations which have been performed on females, who have borne them without any expression of suffering. But none of these cases are very recent, and I have not a sufficiently clear recollection of them, to be enabled to give them to you in *detail.*

"If I should see a surgical operation performed on a person of either sex, who was alleged to be in a state of mesmeric sleep or stupor, and if, throughout the operation, there should be an apparent insensibility to pain, I should be very far from being convinced that the mesmeric sleep, or the insensibility to pain was real. It would appear to me to be far more rational and more in accordance with known facts, to suppose that the sleep and the insensibility to pain were pretended, than to admit the existence of that unnatural state which is described as mesmeric sleep. I have no doubt that persons may be trained to endure severe pain without giving expression to their sufferings, and to feign sleep so perfectly that it would be extremely difficult to detect the imposture.

"Yours respectfully,
"ALFRED C. POST.

"4 Leroy Place, Feb. 13th, 1845."

Private Medical Instruction.—Compliment to Dr. Darling.—We take great pleasure in laying the following correspondence before our readers, not only in testimony of merit, zeal, and assiduity, in a private teacher, but as an incentive to others engaged in the same honorable calling. We lately had an opportunity of examining the case of surgical instruments, alluded to in the correspondence, and we deem it but an act of justice to Mr. George Tiemann, the maker, to say, that in point of elegance, beauty, and superior workmanship, they surpass anything we have heretofore seen from the manufactories of this country. The case, valued at $125, contains, within a very reasonable compass, operating, trephining, amputating, eye and strabismus instruments, catheters, needles, &c. &c.; indeed everything that is ever wanted by the surgeon, except those for lithotomy. That they may prove as useful to the owner, as they are beautiful in appearance, is our sincere wish.

" *University of New York, March* 3, 1845.

" DOCTOR WILLIAM DARLING:

"Dear Sir—At a recent meeting of your Medical Class, held at the University, it was resolved to present you with a neat and valuable set of Surgical Instruments, which we now beg you will accept. And in doing so, the class authorize us, as its committee, to say, in their name, that this testimonial is justly due to you, in consideration of your kind attention to them in their studies, of your amiable and high-minded conduct to them as a gentleman, your distinguished attainments as a scholar, and your accurate, extensive, and profound acquaintance with the science of anatomy.

" With these feelings towards you, we remain, with great respect, yours, &c.,

" E. MACFARLAN,
" JOHN ORME,
" JEREMIAH BROOKS,
" S. S. SATCHWELL,
Committee"

" GENTLEMEN:

" I accept, with pleasure, the very handsome and valuable case of Surgical Instruments, which the Class have been pleased to present me; and allow me to return to them, through you, my sincere thanks, for this very flattering testimonial of their friendship and esteem. Valuable as the gift is in itself, and highly as I may prize it as a work of art, its chief value, in my estimation, arises from the fact, that it is a proof that my humble efforts to impart instruction have met with their approbation, and I shall ever cherish it as an earnest of their kind wishes for my welfare and prosperity. I can only add, that it is my fond hope, that their success in the practice of their profession may be commensurate with the industry and zeal they ever manifested in acquiring a knowledge of its principles.

" I am, very respectfully, yours, &c.,

" WILLIAM DARLING.

" To Messrs. Macfarlan, Orme, Brooks, and Satchwell.

" *New York, March* 3, 1845."

Surgical Clinique at Geneva.—We have received a report of the surgical cases presented at Prof. Hamilton's Surgical Clinique, during his late course of lectures at Geneva College, but they are reported too briefly to be of much use to our readers, and therefore we shall omit their publication. The *Clinique* commenced on the 1st Tuesday of October, but the record of cases begins Nov. 30th. From this time to Jan. 18th, a period of six weeks, *eighty* cases were presented in which operations were performed before the class, some of them rare and of great interest. We extract the two following.—" Nov. 30th. Rhinoplasty. C. B. of Chemung County, aged 11 years, lost by a severe lacerated wound part of the right nostril. Having previously restored the natural channel, which was closed, the operation of Rhinoplasty was performed to-day. The edges of the chasm were first excised; next a piece of integument of the proper size was dissected from the face and transplanted or slid up towards the bridge of the nose, until it could be secured by sutures; after the sutures, adhesive plasters, compresses and rollers were applied, to assist in retaining the flap. Dec. 2. The lad was again brought before the class. The operation is perfectly successful; but as the transplanted skin continues to pull considerably upon the cheek, it was separated from the cheek, before the class, by a long incision down the side of the nose." "J. G. of Junius, aged two years—has a *supernumerary finger* on right hand. The extra finger corresponds to the little finger. At birth there was an extra finger on opposite hand, held only by integument, which was cut off. He has *six* toes on each foot. His mother has the same extra members on both hands and feet, her mother also, and her five brothers and sisters. On her mother's side the same anomaly extends as far back as she knows her history. The finger was amputated."

There appears to have been quite a number of ophthalmic and club foot cases. In one case of complete amaurosis, of 12 years standing, the sight was partially restored, by the use of galvano-electricity, and the internal administration of strychnine. We shall hereafter take great pleasure in publishing accurate reports of all interesting cases, at the cliniques of our different medical schools, both in city and country.

Injuries of the Spinal Column.—In the preceding pages of our journal will be found an interesting case of fracture of the spinal column, with an operation: as such accidents are not infrequent, and in nearly all instances fatal, after a longer or shorter period, the expediency of an operation, in such cases, is a question deserving of discussion and investigation. We were lately invited to visit a patient in consultation, who had been thrown from a wagon, by the wheel coming off, when going at a very rapid rate, and who, in falling, fractured the fifth and sixth cervical vertebræ, by which the lower extremities, and nearly one half the body, were instantly paralyzed. The legs were not susceptible of the slightest sensation or motion; he continued in this state a few days, when the paralysis gradually extended upwards, till finally respiration, which had been mostly unaffected, became extremely difficult, and grew more and more so, till death occurred, about a week after the accident. On examination, the two vertebræ, above mentioned, were found fractured, and the bodies driven in upon the spinal marrow; inflammation had taken place, which resulted in effusion, and this, by pressure upon the cord, above the seat of the injury, so as to involve the origin of the phrenic nerve, had caused death, by paralyzing the muscles of respiration. We have since thought that this patient might have been saved, perhaps, by an operation; at any rate, we think it would have been everyway justifiable.

Dr. Potter, to whom we are indebted for the case referred to, relates the following, in a letter accompanying it:—"About eight years since, I was called to see a man, by the name of Abner Perry, who, while sitting upon the edge of a lumber wagon box, by a sudden start of his horses, was suddenly thrown backwards, out of the wagon, and, in falling, his neck struck on the band of the hub, and he was senseless for a few moments, but soon recovered his reason: his whole system was paralyzed, except his head. Doctor Oliver, of Penn-Yann, was called as counsel. I had already bled him, and the blood had the appearance of arterial blood. His pulse was quick and rapid, his breathing anxious; his countenance had an expression I shall never forget; I pronounced it a case of compression of the spine, by the posterior part of the vertebræ being driven upon the spinal cord, and wished the older physicians to operate; but as they would not consent, the operation was not performed. They called it simple concussion. The man died in less than two weeks; and on a post-mortem examination, my opinion was found to be correct. I found the fourth cervical vertebra driven in upon the spine, in such a manner as to completely compress it; that is, the spinous process was not broken off, but the portion of the body to which the process is attached, was drawn in, with the process attached to it; the process of the fifth was broken off, but the posterior part was not compressed. I still have the bones that were removed, and have shown them to the gentlemen who opposed the operation. I then said I would operate, if I ever found a like case, which has never occurred, until the one I send you, reported by Doctor Hurds."

Quack Advertisements.—The English Evangelical Magazine, for January, has the following announcement of the proprietors: "We shall cheerfully abandon, in future, the publication of all advertisements of quack medicines, which will be an act of homage to our own taste and judgment, no less than a concession to the strongly expressed opinions of some of our best friends, who, with ourselves, deeply deplore the disease and mortality occasioned by the nostrums of medical quacks, published daily in this great metropolis." This is a noble resolution, and we wish it might be adopted and carried out in this country. If it were not for their lying advertisements in the papers, quacks could not live, and how those who have any consciences can lend their sheets to the constant iteration and reiteration of the falsehoods of charlatans, and the publication of forged certificates, is more than we can understand. If editors would unanimously agree to exclude all quack notices from their papers, we think the value of human life would be immediately increased one-third at least. It would do as much for the health of this city as sewarage, cleanliness, temperance, and Croton water, all combined.

Spring Courses of Lectures in New York.—We would call the attention of the students of medicine, both in this city and country, to the annual spring courses of lectures about to be delivered in this city. The course at the Hospital commences on the 10th of March, and that at the College of Physicians and Surgeons on the 11th—the former to continue two, and the latter three months. Two lectures will be delivered at the Hospital, four days in the week, and three lectures daily at the Crosby School, with the exception of Monday, which day is occupied with the clinic by Prof. Parker. Clinical instruction will also be offered at the college, in illustration of the different courses, and the advantages furnished at the hospital for observing medical and surgical practice are too well known to need particular mention. Students, who wish to make large acquisitions in the practical departments of the science, will be glad to avail themselves of the opportunities supplied by these courses of lectures. Country students will find a residence of two or three months in the city, during the spring, both pleasant and profitable.

Forry Monument.—Those gentlemen who have not sent in their subscriptions to the Forry Monument, and who wish to testify, in this manner, their sense of respect for the memory of the late Editor of this journal, are requested to remit the same to the treasurer, A. E. Hosack, M.D.

WANTED—A copy of CRUVEILHIER'S PATHOLOGICAL ANATOMY. Inquire of James Langley, 8 Astor House.

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Art. XX.—Recent Improvements in Arts, Manufactures and Mines, being a Supplement to his Dictionary. By Andrew Ure, M.D., etc. Illustrated with one hundred and ninety engravings. New York: D. Appleton, 1845. 8vo. pp. 304. 405

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Art. XXV.—A Conspectus of Pharmacopœias of the London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopœia; being a Practical Compendium of Materia Medica and Pharmacy. The Third Am. Edition. Edited by Charles A. Lee, M.D., Prof. of Gen. Pathology and Mat. Med. in Geneva Medical College, N. Y. H. G. Langley. 1845. 18mo. pp. 315, ... ib.

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TO READERS AND CORRESPONDENTS.

The present number closes the 4th Vol. of the New York Journal of Medicine, and the Collateral Sciences. The favor with which it has been received by the profession, as well as the amount of patronage extended to it, afford sufficient encouragement for its continuance, and it will therefore be issued hereafter at the usual periods, under the Editorial charge of Dr. Lee. The next number will contain articles by Professor Austin Flint, of Buffalo, Professor Hamilton, of Geneva College, Dr. Edson Carr, of Canandaigua, Professor Shipman, of Cortlandville, Drs. James M. Gardner, of Newburgh, A. C. Post, W. C. Roberts, J. A. Swett, E. G. Ludlow, J. C. Peters, and Theo. A. Tellkampf, *&c.*, of this city.

☞ We have received from Mr. Hocken, of London, a pamphlet, being a reply to a notice of a work of his, in the last No. of the *British and Foreign Medical Review*, together with a letter, requesting us to do him justice in the premises. Not having seen Mr. Hocken's book, we are unable to comply with his request; we judge from the sensitiveness displayed, that the writer is a young man, who thinks his fate hangs entirely on the *dictum* of a reviewer,—a very common, but a very great mistake.

We have received since our last publication the following works:

Guano, its origin, properties and uses, showing its importance to the Farmers of the United States as a cheap and valuable manure, with directions for using it. 2d Edition. New York: Wiley and Putnam. 8vo., pp. 92. (From the Publishers.)

A Practical Treatise on Organic Diseases of the Uterus, being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1843. By John C. W. Lever, M.D., Member of the Royal College of Physicians, London, &c. Newburgh, New York: D. L. Proudfit. New York: Burgess and Stringer. 1845. 8vo., pp. 240. (From the Publishers.)

Common Sense on Chronic Diseases, or a Rational Treatise on the Mechanical Cause and Cure of most Chronic Affections of the Truncal Organs of both Male and Female Systems, embracing the Author's views on Physical Education, and the present popular system of artificial life. By E. P. Banning, M.D. Boston. 1844. 12mo., pp. 402 (From the Author.)

Republication of the London Lancet. New American Series. Nos. III. and IV. New York: Burgess, Stringer and Co. 1845. (From the Publishers.)

Valedictory Address to the Graduating Class of the Medical Department of Pennsylvania College, for the Session of 1844-5. By John Wiltbank, M.D., Prof. of Obstetrics and Diseases of Women and Children. Published by request of the class. 8vo., pp. 15. 1845.

A Valedictory Address, delivered by Gunning S. Bedford, A.M., M.D., Prof. of Midwifery and the Diseases of Women and Children, in the New York University, on the Evening of Feb. 28, 1845. Printed for the Medical Class. 1845. 8vo., pp. 20. (From the Author.)

The Philosophy of the Moving Powers of the Blood. By G. Calvert Holland, M.D. London. 1844. 8vo., pp. 308. (From the Author.)

Rural Economy in its relations with Chemistry, Physics and Meteorology, or Chemistry applied to Agriculture. By J. B. Boussingault, Member of the Institute of France. Translated with an Introduction and Notes, by George Low, Agriculturist. New York: D. Appleton and Co 1845. 12mo., pp. 507.

A Practical Treatise on Laryngeal Phthisis, Chronic Laryngitis and Diseases of the Voice. By A. Trousseau and H. Belloc, M.D. Philadelphia: Carey and Hart. 8vo., pp. 186.

A Treatise on the Diseases and Hygiene of the Voice. By Colombat de L'Isere. Translated by J. T. W. Lane, M.D. Boston, 1845.

Twenty-fourth Annual Report of the Bloomingdale Asylum for the Insane. For the year 1844. New York: 1845. 8vo. pp. 55.

Annual Report of the Managers of the State Lunatic Asylum, made to the Legislature, Jan. 31, 1845. Albany: 1845. 8vo., pp. 53.

Report of the Medical Missionary Society in China, containing a General Survey of its Operations, from March, 1843, to June, 1844. Macao: 1844.

The Cyclopædia of Practical Medicine. Parts XXI., XXII., XXIII., XXIV. Philadelphia: Lea and Blanchard. 1845.

Elements of Comparative Anatomy of the Vertebrate Animals designed especially for the use of Students. By RUDOLPH WAGNER, M.D., Professor of Comparative Anatomy and Physiology in the University of Gottingen, etc., Edited from the German, by Alfred Tuck, M. R. C. S. New York: J. S. Redfield. 1845. 8vo., pp. 264.

A Treatise on Poisons, in relation to Medical Jurisprudence, Physiology, and the Practice of Physic. By ROBERT CHRISTISON, M. D., F. R. S. E. First American, from the 4th Ed. Edition. Phila.: Barrington and Haswell. 8vo , pp. 756.

Hydropathy, or the Water-Cure; its Principles, Modes of Treatment, &c. Illustrated with many cases, compiled chiefly from the most eminent European Authors on the subject. By JOEL SHEW, M.D. 2d Edition, Revised and Enlarged. New York: Wiley and Putnam. 1845. 12mo., pp. 360.

Recent Improvements in Arts, Manufactures and Mines, being a supplement to his Dictionary. By ANDREW URE, M.D., etc. Illustrated with one hundred and ninety engravings. New York: D. Appleton. 1845. 8vo., pp. 304.

Human Magnetism, its claims to Dispassionate Inquiry, being an attempt to show the utility of its application for the relief of human suffering. By W. NEWNHAM, Esq., M. R. C. S. L. New York: Wiley and Putnam. 1845. 12mo., pp. 396.

The Forceps. Journal of Dental Surgery, and the Collateral Arts and Sciences. London. 1844—5.

A Synopsis of the Symptoms, Diagnosis and Treatment of the more common and important Diseases of the Skin, with sixty colored figures. By N. WORCESTER, M.D., Prof. of Physical Diagnosis and General Pathology in the Medical School of Cleaveland, Ohio. Phila.: 1845. Large 8vo., pp. 202.

A Dictionary of Practical Medicine; comprising general Pathology, and Treatment of Diseases, Morbid Structures, &c. By JAMES COPLAND, M.D., F.R.S. Edited with additions, by Charles A. Lee, M.D. Parts V. and VI., pp. 288. Harper and Brothers. 1845.

A Conspectus of Pharmacopœias of the London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopœia; being a Practical Compendium of Materia Medica and Pharmacy. The 3d Am. Edition. Edited by CHARLES A. LEE, M.D., Prof. of Gen. Pathology and Mat. Med. in Geneva Medical College, New York: H. G. Langley. 1845. 18mo., pp. 315.

The following Medical Journals have been received in Exchange:

The British and Foreign Medical Review.
The London Medical Times.
The Dublin Medical Press.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Medical News.
The Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal and Library of Dental Science.
The American Journal of Insanity.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publisher, Henry G Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of H. G. Langley. New York. Persons at a distance, may direct parcels paid as above, under care of Barrington and Haswell, Philadelphia, W. D. Ticknor and Co., Boston, and Wiley and Putnam, London.

☞ Postmasters, it will be borne in mind, are authorized by law to frank letters containing money for the subscription of periodicals till July 4th.

⁎ We regret to perceive in our last number several typographical errors in Dr. Coventry's Article on the History of Medical Legislation, in the State of New York.

Page 154, 3d line, read " Tuesday in July," instead of " Thursday."
" " 21st line, read " magnified" for " manifest."
" 155, 11th line from bottom, read " $5,000 for State society."
" 157, 22 lines from bottom, read " Legislative," instead of " Legislation."
" 160, 11 lines from bottom, read " possible" for " probable."
" " 3 lines from bottom, read " Trustees" instead of " Counties."
" 166, 5th line from top, read " which is five dollars to the County Societies."

In the Report of Dr. White's Case of Operation in our present number, after the word " supra-scapulary," 9th line from bottom of 340th page, insert " *there was no blood-vessel visible.*" For "*salivation*," 1st line, page 342, read "*sore-mouth.*"

THE NEW YORK

JOURNAL OF MEDICINE.

FOR MAY, 1845.

PART FIRST.

Original Communications.

Art. I. *Remarks on the Resuscitation of persons Asphyxiated from Drowning.* By James Stewart, M.D., of New York.

The almost entire failure in attempts to restore animation to those who have been asphyxiated by drowning, which has occurred tomyself and to many medical friends whom I have consulted in reference to this subject, even in instances, as I have been informed, where feeble respiration has existed, led me some time since to doubt the correctness of the means extensively recommended for effecting this object, and to reflect upon the circumstances connected with the submersion of the body in water, and its actual condition when taken out, as the principal guide for the adoption of the proper remedies for resuscitation, and the order in which they should be used.

The application of warmth in the treatment of those in a state of suspended animation from submersion is of primary importance, and not a mere auxiliary remedy; and the success attending a recent case where this course was adopted, has confirmed me in the correctness of these views.

The application of warmth is, in most cases, recommended, but only as a means auxiliary to that of insufflation of the lungs. The latter has been extensively urged as the first and principal means, and whatever other measures are adopted, such as warmth, frictions, etc., persevering attempts to excite respiration by filling the lungs with air from a common bellows are directed never to be omitted, if a more suitable and delicate apparatus for the same purpose cannot be obtained.

It is not my intention to underrate the important principle of supplying the deficient atmospheric air, but to object to the mode which is recommended. If no other method can be devised than forcible insufflation, it had better by far be abandoned altogether, and that which has been considered as a mere appendage, adopted in its place as the most rational mode of treatment, and the only one which promises any prospect of success. Before I undertake to suggest a different plan of procedure from that strongly advised by high authority in the profession, it would be proper to consider what objections exist to the latter, and what are the results of attempts to induce respiration in the manner usually recommended.

It is unnecessary to examine the different theories of asphyxia, for all are agreed that it is the absence of the oxygen of the air that deprives the blood of the power to effect the contractions of the heart: indeed none of the theories satisfactorily explain how the application of air to the blood in the lungs promotes the flow of blood in those parts; the fact is known, and the artificial application of air is very naturally suggested, to supply the deficiency. But is the usual mode of its supply supported by any satisfactory results? And do not the experiments that have been made with it, prove that it is a process positively injurious and hazardous to life? Munroe, a number of years since, directed the drowned to be treated by throwing into the lungs as much air as could be done by one operation of a common bellows, without reflecting that the extremely delicate structure of the air vesicles of the lungs might cause them to burst in the operation; and all pneumatic operators from his time to the present day attempt thus to distend the lungs—a course of proceeding the very reverse of natural inspiration, which is effected by the expansion of the chest, the formation of a vacuum, and the passage of air to fill up the deficiency. That no benefits have resulted from the practice of artificial insufflation is the opinion of many experienced persons, and actual experiments have proved it to be decidedly injurious, if not destructive to life.

Struve, in his excellent "Practical Essay on the Art of Recovering Suspended Animation," published in 1797, remarks that the inflation of the lungs is in general prejudicial, and as the operation is attended with great difficulty, it can scarcely be recommended to any other than a medical man. He quotes also, the opinion of Professor Vogel of Rostock: "I, for my part, expect very little success from the introduction of air into the lungs; and I am of opinion that by the general method of proceeding, little or no air will react on this organ, and even if it does, I never could perceive the least expiration of it, nor any motion of the thorax." Struve also mentions the case of a person drowned, in whom the signs of life were perceptible, but whose recovery was prevented by continuing the operation of inflation. Since that period, we have the testimony of Majendie, as to the results of this practice. He states, that from the records kept in the city of Paris of the effects of the various measures adopted for the recovery of the drowned, the decrease of the number restored to life has been coincident with the greater prevalence of the practice of insufflation. That forcible insufflation will itself produce death, has been proved by the experiments of M. Leroy d'Etoilles, in Paris, in the year 1826. Rabbits, dogs, and sheep were repeatedly subjected by him to the experiment, and it was found that the functions of the lungs were quickly destroyed by this process. The lungs of the sheep approach very nearly in volume to those of men, and the following experiment was four times tried on that animal, with a similar result. An incision was made in the trachea and a tube secured in the opening; air was forced from the mouth into the lungs, when the tube was withdrawn. The animal became convulsed, and the pulse ceased to beat in five minutes. In three others, the insufflation was performed less rapidly, and death did not take place in fifteen minutes. In some of those cases the air-cells were ruptured and a communication between them and the cavity of the chest, even established through the pleura. The sudden death of these animals was evidently not caused by the mere introduction of carbonized air from the experimenter's lungs, for when the same quantity was blown in slowly, the animal did not appear to suffer any inconvenience. These experiments were repeated by Majendie upon human corpses, and were followed by rupture of the air-cells, air in the cavities of the pleura, and in some instances bubbles of air were found in different parts of the sanguiferous system.

An instance of the injurious effects of forcible insufflation performed by the mouth, is given by Dr. Eberle in his work upon children, occurring when this means was resorted to for the purpose of establishing respiration in a new-born infant, but which in this instance was not successful. A tumor appeared over one of the clavicles, which, on examination, proved to have arisen from the rupture of the air-cells of a portion of the lungs; the emphysema extending over a considerable portion of the surface of the pleura.

From these important facts is it not evident that the method usually recommended both for professional and popular use, of attempting to inflate the lungs with a pair of bellows is one of extreme hazard if not of positive injury, and calculated in the hands of inexperienced persons to produce irremediable and fatal consequences? If when performed by professed surgeons it is regarded as an operation of great delicacy and extreme caution—so much so that its proper management has led to the construction of a graduated scale upon the handles of a bellows made expressly for such a purpose—what are we to expect when any of the accidental bystanders undertake to blow up the lungs with a pair of common fire-bellows?

To induce respiration, modern science will furnish us with an agent by which we may be able to imitate nature in producing the proper movements of the respiratory muscles; and thus, by the vacuum within and the atmospheric pressure from without, the respiratory process may be imitated without the rough usage of forcing air into the lungs in a mode the very opposite to the provisions of the system. Electro-magnetism offers the only means whereby an action of these muscles may be induced. The compact and convenient arrangement of the powerful instruments for applying this agent, puts it in the power of every medical man to be as ready to render assistance with as much promptness in cases of asphyxia as he usually is in any other species of accident. It is an interesting subject, and it is hoped will meet with attention commensurate with its importance.

It appears to have been a common error to regard all cases of asphyxia from whatever causes they may have arisen as identical, from the fact that a deprivation of air occurs as a cause in them all; and hence a common treatment, with but little modification, has been recommended for every case. The deprivation of atmospheric air, although the cause of that state now known as asphyxia, is yet attended with particular circumstances in different instances which very essentially modify the condition of the body, and consequently demands some modification in the treatment. The state of the body of a person who has met his death by hanging is very different from that of one who has been drowned. There is a great difference between such as are suffocated by a closure of the trachea, the inhaling of deleterious gases, &c., and such as are drowned.

The body in the former case retains its heat for a long time—much longer than usual:—while in the latter a remarkable coldness and contraction of the surface are its characteristic condition in an exceedingly short time after submersion; the surface also is much paler, showing that the blood has left the smaller vessels of the skin. Although exhibiting a general correspondence in the state of the internal organs, there is yet a greater degree of congestion of these parts in the drowned, and the larger blood-vessels are more loaded than in those who have been hung. The surface of the body also of those who have died from inhaling noxious gases retains its heat for a much longer time. We should avail ourselves of these important facts as indications of some modification in the treatment to be adopted in the respective cases, and not draw our inferences from experiments that can scarcely be regarded as parallel. From certain experiments upon reptiles it has been inferred that it is hazardous in cases of asphyxia to apply heat. Reptiles highly tenacious of life have been stifled by having a moistened bladder fixed tightly over the mouth; others have been deprived of the heart; and in these conditions immersed in warm water, and when apparently dead have been revived by being taken out and exposed to the vivifying influence of the cool air. Hence it has been asserted that warmth is injurious to asphyxiated individuals without making any distinction as to the cause which produced this state. It is evident, however, that these cases do not afford an illustration of the case of a drowned person, for in him the minute circulation of the surface is arrested and the blood is forced to the interior; while in the experiments just mentioned and also in parallel cases of accidental asphyxia, the blood still remains in the smaller vessels of the skin, and for the short time that life continues, actually becomes a species of substitute for the blood which should circulate through the lungs, and the cool oxygenated air produces a limited influence through the medium of skin, and the combined influence of these stimuli will tend to excite a movement in the fluids contained in the capillaries. To make the experiment applicable to the case of a drowned person, the surface of the body of a warm-blooded animal should, at the moment it is asphyxiated, be cooled 30° or 40° below its ordinary temperature; with this additional cause of suspended animation, a very essential difference in the treatment to resuscitate the animal is evidently required. It must be evident in the case of the drowned that it would be improper to expose the body to the cold air, as this must, under the peculiar condition of the body, act as a sedative to the nerves and capillaries of the surface, and upon no recognized principle can it be regarded as a restorative measure. Warmth is the only mode by which the nerves of the surface and the capillaries can be brought into action and the internal congestion relieved.

One of the most prominent facts connected with drowning under ordinary circumstances is the rapid abstraction of the heat of the body by the dense fluid by which it is surrounded; effected by the comparative coldness of the water, its great amount which allows of not a momentary cessation in the universal tendency to an equilibrium, and the suspension of vital action which occurs on the arrest of respiration. It has been proved that the living, breathing body immersed in the sea at the temperature of 44° loses about 15° in a minute and a half; it cannot, however, be reduced any lower. Now if respiration ceases and the functions of vitality are suspended, there is no supply of animal heat, and its abstraction must then proceed without anything to arrest it until the body is of the same temperature as the water. The ordinary temperature of the water of the Hudson is about 40° below that of the human body, and every one knows, who has been present when a body has been taken out of the water which has been seen to fall in, what a rapid reduction of temperature has taken place. An extreme coldness is always a marked condition of the bodies of the drowned, an evidence both of the arrest of circulation, the loss of nervous power, and the consequent destruction of vital action.

Those animals which produce the most heat, as man, live the shortest time when submerged; it therefore appears to be the most rational course to restore the heat which is so necessary for him, as quickly as it can be done. Heat is the first thing required to excite vitality; and a principal cause of the want of success in the attempts at resuscitation, I am satisfied is the neglect to warm the body, which, together with the rough and unnatural usage which it often receives, quickly exhausts the remains of life.

The influence of temperature in the direct effect it produces upon the nervous system independently of the circulation, has been proved by the experiments of Dr. W. F. Edwards, detailed in his work on the influence of physical agents on life. The powerful effects of the same agent in restoring vital action has been very curiously illustrated under entirely different circumstances—where the depression of vital power occurred from inanition. These experiments are given in an essay by Dr. Chossart, which received the prize of the French Academy of Sciences. They prove that heat alone is a very powerful means of restoration under that condition of the system which exists immediately before death from starvation. Several small animals, such as pigeons, turtle-doves, etc., were starved until death was so near that several of them died while the heater was preparing to receive them. In this state their temperature was found to be greatly reduced, and the result of the application of artificial heat was in general to restore those yet alive, from a state of insensibility and want of muscular power, to a condition of comparative activity; their temperature arose, their muscular power returned, they flew about the room and took food when it was presented to them. Warmth alone, it is well known, will restore animation to insects when drowned.

As far, therefore, as actual experiment has been able to prove the effects of heat upon animal life, it is clearly evident that it is the most active agent in the restoration of vital action, the loss or depression of which is invariably connected with a greater or less degree of depression of temperature. When from any cause the natural evolution of animal heat is arrested, the application of artificial heat is evidently the most proper method to be adopted, and it is one to which our instinct prompts us. Why then should the actual condition and wants of the body be so much disregarded, and heat withheld or imperfectly applied under circumstances which demand it most?

The direct establishment of respiration also, by the effect which heat exerts upon the circulation, makes it an important measure in the treatment of the drowned. The immersion of the body in the cold water constricts the small vessels upon the surface, forces the blood into the larger blood-vessels, and crowds the lungs and right side of the heart with blood, which thus mechanically inpedes their proper motion. This state of congestion is momentarily experienced by most persons to a greater or less degree, upon plunging in a cold bath. The operation of heat applied to the entire surface of the body and limbs, is to unload these crowded parts, and thereby not only afford them an opportunity to act, but by the current produced through the vessels actually commences the process of the circulation of the blood.

I have been induced to make these few remarks from having recently seen the beneficial results of the practice here recommended; indeed, the only successful case out of five or six, in all of which insufflation was practised. The case to which I refer, was that of a child about five years of age, who had fallen in a large covered excavation, containing about four feet of water. When I saw him, he was, to appearance, perfectly dead, without respiration, entirely destitute of pulsation at the wrist, nor could any movement of the heart be detected. The body was very cold, and the limbs hung lifeless, as he was carried by a man to be rolled upon a barrel. I directed him to be wrapped in some warm clothing, first wiping the body dry, and taken to the nearest bed; at the same time I sent a bystander for a blanket and another for some warm water from the first fire where it could be found. All these directions were promptly followed. The child had already been placed in a warm bed, before any of the articles were procured; as soon as they could be used, the body was completely enveloped in the blanket saturated with hot water, when the child made one deep inspiration. A long interval followed, when another inspiration took place; the intervals between the inspirations gradually lessened, until in about an hour the respirations had become regular, but very laborious. The child continued in a state of stupor for about twelve hours; he gradually recovered from this state, when violent reaction occurred to such an extent as to endanger his life, from inflammation of the brain. This state was only subdued by prompt blood-letting, and a week elapsed before the excitement of the circulation was effectually subdued.

In the directions published for the information of such as happen to be present upon taking the body of a drowned person from the water, I would suggest that such only as tend to impart warmth, be the means adopted. The inflation of the lungs, even if it is not positively injurious, is an operation requiring much skill and delicacy, and some amount of anatomical knowledge that cannot be imparted by any popular instruction. The application of heat is one which any person can perform, while professional assistance is sent for. A practice, the very reverse of active measures, almost universally prevails: no attempt, whatever, is made to warm the body, or to do anything else, except, perhaps, rolling it on a barrel, or leaving it exposed in its wet clothes, surrounded by idle spectators, inactive from ignorance of what to do, or from a natural unwillingness to undertake a strictly surgical operation. Let them be instructed to adopt a measure which is evidently founded alike upon common sense and physiological principles, and which is so easy to put in practice; while other measures are left for the professional man. Let them be told that nothing is required of them but the application of warmth, and the careful handling of the body, as is always done in cases of other accidents.

The best method of applying heat is that which can be done with the least delay. Dry heat for various reasons would be decidedly preferable, but I know of no method that could be relied upon to apply heat in this manner, with the necessary promptness. The mode which, under ordinary circumstances, can most readily be put in practice, is to envelope the naked body in a large blanket which has been thoroughly saturated with hot water, a small quantity of which can always be found where there are any houses ; and if it is but a quart it will be sufficient to wet the blanket for all purposes required. As it is always necessary to simplify the directions, so that no confusion or delay may arise from the suggestions of different methods, the object would perhaps be best attained by directing this alone to be done. While, therefore, the body is carefully conveyed, if possible, to a bed, and there divested of its wet clothing, and immediately covered with anything that will prevent the further loss of heat, let some of the bystanders be sent to obtain water from a neighboring fire ; then direct a blanket to be wetted with it, and with it cover the entire body and limbs, leaving the head exposed to the cool air. By attending to these simple directions, an invaluable period of time can be improved, and prompt and effective assistance rendered by any one, without the possibility of erring, until the services of a medical man can be obtained.

ART. II.—*On the Pathology of Leucorrhœa, Fluor Albus, or the Whites ; with a detail of the opinions relating to it, of some of the most distinguished authors during the last* 170 *years, a notice of the peculiar appearances of the discharge, and an attempt to connect it more directly than has hitherto been generally done, with inflammation of the vagina, cervix, and lining membrane of the uterus. To which are appended, numerous illustrative cases.*

By WM. C. ROBERTS, M.D., Fellow of the Coll. Phy. and Surg., Lecturer in the Spring Course of the Assoc. for Med. Instruc. of said College ; and formerly Physician to the Northern Dispensary.

THAT the subject of " the Whites" stands in need of some such examination as the present, is abundantly evident from the confused and conflicting accounts which are given of it by many of the standard authorities whose opinions will be cited. The very name of " sexual *weakness*" which has been so generally applied to it, has long tended to mislead the student as to its real nature, and to lead to a mode of treating it, often useless, if not actually injurious. The more accurate views of its pathology which have resulted from the employment of that invaluable instrument in the investigation of uterine diseases, the speculum, render it desirable, also, that these should be presented in all their force under the eye of the profession, in order that the true nature of Leucorrhœa may be ascertained and understood, the use of the speculum upheld, recommended and encouraged, the needless prejudice against it, on the score of indelicacy, overcome, and a better method of cure indicated and adopted. Without the speculum, it is often absolutely impossible either to assign the causes of the discharge, or to apply the appropriate remedies. Something may indeed be accomplished by the simple inspection of the former, and by the touch ; but even then, much must remain doubtful, and the treatment be often insufficient and always uncertain. To proceed thus far even, an intimate knowledge of the varieties of discharge which occur in this complaint, and of the various states of the parts upon which they depend, must be possessed, and upon this point we hope to be able to afford a degree of positive assurance, which cannot, as yet, be met with elsewhere. We can safely say, that notwithstanding the information we may have possessed from reading, we had no practical knowledge of the facts which were developed during the researches on which our remarks are to be founded. We desire, however, in making these observations, that it be clearly understood that we pretend to offer no novelty to the reader, but aim only at putting him in possession of the ideas at present entertained upon the subject, and at corroborating, by the relation of our own experience, views which have elsewhere been expressed, and which appear to us to be the most correct, of its true nature.

We propose to divide our essay into three parts. The first will contain the expressed opinions of some of the leading writers on the subject since the year 1670, with such critical remarks as may suggest themselves on the perusal of each. These we shall arrange in chronological order, and thus will be presented a mass of information on the subject of Leucorrhœal Pathology which, unless we deceive ourselves, the reader will in vain seek to find assembled elsewhere. From this he may select the theory which best accords with his judgment ; many sources we must have overlooked, and many have been inaccessible to us, but few of any real merit have, we trust, escaped our notice. In the second part, we shall consider the subject of Leucorrhœal Pathology particularly, especially as it relates to its connexion with certain morbid states of the vagina or uterus, and furnish the result of our observations as to the peculiarities of the discharges which characterize it. In the third, we shall offer a series of cases of the disease, in which the speculum was employed, more numerous, with a single exception hereafter to be noted, than is anywhere upon record ; with such remarks as may tend to elucidate the true history of the disease. As we have to do only with *its pathology*, we shall enter into no minute description of the lesions themselves, nor of the treatment which they require, further than is displayed in the recital of the cases themselves.

PART I.—It is customary to commence the pathological history of a disease by a reference to Hippocrates. " The divine old man," say the authors of the Art. Leuc. in the Dict. des Sc. Med., " clearly describes as many as ten sorts of this disease, according to their color ; thus he considers, in as many separate paragraphs, white, yellowish, and greenish fluxes, those which resemble the urine of sheep, the whites of eggs, the juice of cooked meat. Aretæus, Alexander Tralles, P. Eginetus, and Oribasius, only just mention it. Aetius divides it into painful and not painful, remarking that the first *was always associated with ulcerations.* Galen treats of it in several places, but does not seem to have written any particular treatise upon it. A clever one upon the subject, which assisted in disencumbering its history from the humoral theories of the Arabs and the explanations of Galen and the chemists, is that of Guy Charleton, published in the 18th century, entitled, " Inquis. Med. Phys. de Caus. Catamenior : necnon uteri rheumatismo, sive fluore albo." This author was deceived by a resemblance which he supposed to exist between chyle and the uterine flux. The most remarkable work we have on catarrhus uterinus, is incontestably the Monog. of Blattin, published in 1802, "Du Cat. Ut. ou des fleurs blanches." It is learned, complete, curious and useful."*

The earliest author whom we shall quote, as an exemplification of the theories and expressions of his time, and in contrast with succeeding opinions, is the very self-complacent Mr. Nicholas Culpeper, whose antique work, "Directions for Midwives, or a Guide for Women, 1676," is curious and entertaining. On p. 2d, lib. 4, sect. 2d, chap. 12, p. 50, "of the Whites," we are told that the immediate cause is an excrementitious humor, phlegm, choler, or melancholy. "It is gathered in the whole body, or in the stomach, liver and spleen. For they who have crudities in the stomach are subject to this disease. Sometimes the womb alone is distempered, after often mischances, or when the womb is very cold and moist. This matter flows through the veins of the womb, or the neck of it, which use to carry blood, and nature abuseth them to carry excrements, especially if they are bred in the womb. If they be not bred in the womb, the humor is from a cacochymy." Mauriceau, in his Tr. des Mal. des femmes grosses, &c., 1721, 6th ed., lib. 3, chap. 22, p. 457, says, "these whites distil from the inner substance of the womb, *and from the same vessels which serve to evacuate the menses.* The principal cause of the whites is not always the womb, for often disordered viscera evacuate their corrupted humors upon this part, which serves as a sewer to the whole female economy; nevertheless, a bad disposition of the womb contributes much to increase this disease, whether because it has suffered some violence in a bad labor, or because there being obstruction to the vessels of this part, which ought to allow the menstrual blood to flow, there oozes from it only the most serous humor, which is changed into the whites." "These," according to the author, "are common in pregnancy, because the menses being suppressed, change into these whites, which then do not flow from the fundus uteri, but only from the vessels which open at its inner orifice (459); a great discharge of them so debilitates the woman, he says, that she is oftenest barren." On p. 461 he tells us that whites "proceed from a great heating of the intestines, and from constipation, which heats the womb, which then draws towards itself much of the superfluous humors of the body." The glorious work of Morgagni would come next in order; but in order to approximate the three specimens of purely humoral and speculative pathology, we shall next cite Astruc, a learned and most elaborate author on the Diseases of Females in his time, whose work is dated 1770 (vol. 2d). "Whites," he says, "are of two kinds: milky and lymphatic." The causes of the first he conceives to be that the milky juice which separates from the vessels of the womb, which must accumulate for a whole month to produce the eruption of the menses, can escape drop by drop from the proper vessels, and thus produce the milky fluor albus, only under the influence of one of three causes. "1st. When it is too abundant and cannot be contained in its vessels, *whose orifices it forces;* 2d. When it is too fluid, and escapes by the orifices of its vessels, otherwise sufficiently closed; 3d. When the orifices of the vessels are too open, or too easy to be opened, and thus allow it to escape too easily;" each of which hypotheses he attempts to establish in tedious detail. "In cases which depend on the first order of causes, the humor which flows is white, thick and truly milky, *because it is true milk*, which is only too abundant, &c., &c." The lymphatic whites are due to an escape, from three causes, of the lymph which circulates in the lymphatic vessels moistening the inner surface of the womb. The discharge is yellow, or green, acrid, fetid and corrosive, when the milky juice or lymph is mingled with bile, or a few drops of blood. Ulcers of the womb, according to Astruc, are a solution of continuity, or laceration of the inner surface of the womb, not recent, whence flows pus, or at least a purulent serosity (310), which is white, ashy, green, yellow, according to circumstances. These ulcerations, which, though possible, are purely hypothetical, may arise, he says, from very acrid and inveterate leucorrhœa, which first relaxes and then excoriates the womb. In the three quotations now made, we see the false pride of ignorance and the delusiveness of hypothesis. There is in the unfounded assertions of these authors, oracles in their day, the germ of errors which are currently perpetuated to the present time, and not one idea which can safely stand the test of truth. We turn with pleasure to the consideration a work which will bear comparison on the subject of leucorrhœal pathology, with any one of our own time, and affords information extraordinarily accurate and valuable. It is surprising that this book was overlooked by Astruc, and that we do not find its contents noted by any author whom we have consulted, prior to the year 1818. (See the cit. from the Dict. des Sc. Med. post.) Morgagni, de Sedibus et Causis Morborum, was published in 1760. We quote from Cooke's abridgment, Phila., vol. i., p. 403. The first passage which we shall transcribe contains a fact which has hitherto escaped notice, and displays an early knowledge and use of the speculum, a very ancient instrument happily recently revived in the investigation of uterine disease. "The os uteri will not only admit of being felt with the finger, *but it may be brought into view by means of a speculum*, or even without it, especially if the vagina is short, *by introducing an ivory or crystal funnel of a proper length and breadth*, and, if necessary, employing a light. *In this way I have seen the os uteri more than once.*" It is much to be regretted that Morgagni did not pursue the opportunities of examination which were thus opened to his view. "Organic lesions producing mucous and serous discharges."—Leucorrhœa—is the heading of p. 409. "Generally," says Morgagni, "*the uterus is the source of fluor albus.* Pus is discharged when ulceration has taken place either in the uterus, or vagina. *Serum, or a variously colored secretion, is usually secreted when the inner membrane of the uterus*, like that of the nostril in coryza, may be affected with a kind of rheuma." The reader will note the accuracy of the underscored passages.

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* This work we have been unable to obtain.

The 17th case is that of a maiden of 16, who had leucorrhœa. The orifice of the vagina and hymen was red, inclining to blackness, and the vagina was, in some parts, gangrenous. The uterus was small and thin; the upper part of the fundus, *on its inner surface*, was universally reddened by distended blood-vessels. "When I had wiped from the os uteri and the cervix, the mucus which we find there in a natural state, and then compressed the inferior part of the fundus, the cervix and corona of the os, I observed whitish matter of rather thick consistence, proceed from all these places in a regular manner, *which clearly demonstrated whence the leucorrhœa had originated*" (xlvii., 12). In a woman who had been affected with leucorrhœa, *the vagina was found red*, the os uteri very large, and *the inner surface of the uterus unusually vascular.* The vagina and cervix were smeared over with a *thick white* discharge. "I imagined that this state resembles that which would be found in the Schneiderian membrane after coryza," p. 412.

Case 18. "*The cavity of the uterus* was filled with a humid secretion of a white color, *but inclining to a yellowish or greenish hue.* And when the fluid was wiped off, *the inner surface of the uterus*, in several places exhibited *small whitish tubercles. The orifice of the uterus*, as well as the hymen and vagina *were inflamed*." (413.)

Case 19. "The color *of the inner surface of the fundus uteri was nearly that of blood, and the corona osculi* (circumference of the os) had almost the same appearance, though with a greater tendency to blackness. From the os and cervix a thick and almost puriform mucus issued." "In a maiden whose vagina was moistened by a rather white and thickish matter, the dissection of the upper parts demonstrated that the secretion must have taken place from the corona of the os and cervix, or vagina, from *vesicles* which are sometimes prominent there, containing in health nothing but a limpid mucus, but separating, in consequence of disease, a different matter, sometimes opaque, and rather thick, and occasionally even watery," p. 414. Query—Is not this the granular inflammation of Boivin and Dugès? "In a case where the cavity of the fundus contained a spoonful of yellow serum, *the whole upper part of the cavity of the fundus*, but especially its posterior surface, was tinged of a reddish black." (Ep. 47, 16.) We have in these interesting passages the pathology of uterine leucorrhœa set forth by the aid of morbid anatomy, in a manner to which modern investigation can add nothing, and from which it can take nothing away. It is strange that the facts thus precisely stated by Morgagni should so long have remained unnoticed by subsequent writers. The enlargement of the neck from congestion, and its superficial ulceration, escaped his notice, which would not have been the case had the speculum been oftener applied.

Manning's Treatise on Female Diseases, 1775, is an agreeably written, and for the most part judicious and useful work; but his theory of the proximate cause of Leucorrhœa is unfortunately only the expression of antiquated and erroneous doctrines, not wholly exploded even at the present day. "The proximate cause," he says, "is a redundancy of serous humors, and a *relaxation* of the uterine vessels." (p. 162.) Some causes *weaken* the uterus by occasioning a greater derivation of fluids towards it, with relaxation of vessels, obstruction of circulation, and escape of the thinner parts of the accumulated fluids by the distended lateral ducts. (167.) Elsewhere he as gratuitously speaks of the extreme orifices of the vessels being relaxed and weakened by being violently stretched, as in hard labor. Purging, issues, emetics, astringents, chalybeates, balsamic injections and fumigations, cold bathing, and regimen, constituted, as now, the method of treatment. With whom the theory of weakened and relaxed vessels originated, we cannot determine. We find it here asserted, and it has been handed down almost uncontradicted until our own time. But the progress of modern science will, it is hoped, dispel these errors, and make amends for the past. Clogged with further faults, we find the doctrine inculcated by Leake, in a work of merit, but displaying a good deal of personal ostentation, and partly intended for the general reader.—"Pract. obs. towards the prevention and cure of the chronic diseases peculiar to women, 7th ed., 1792." "Fluor albus," he observes, "proceeds from the vessels subservient to menstruation, sometimes coming from the mucous glands of the womb and sometimes from the vagina." (Vol. i., p. 100.) "It may be distinguished," he says, "into two kinds; the first arising from *simple weakness and relaxation of the solids*, which may be general or partial; the second from *a vitiated and impure* blood, when the body is loaded with *gross humors* (how often do we hear these expressions at the present day) which nature, for her security and relief, thus endeavors to carry off." (p. 102.) "It often," he says, "produces ulceration of the womb, bearing down, barrenness, dropsy or consumption." (107.) Again he tells us that "it most commonly arises from *relaxation and bodily* weakness" (108), a view which we shall show to be in part taken in late works of standard authority. Dr. Leake's treatment, though he is not explicit, is essentially tonic. Dr. A. Hamilton's sketchy production, intended, as he says, as a guide to midwives, but dignified with the title of "a Treatise on the management of female complaints (Ed. 1813), gives rather an improved view of the subject of "Sexual Weakness," which occupies four scanty pages. (sect. ix., p. 37.) He has more accurately noticed the characters of the discharge than his predecessors. "If," says he, "the color be greenish, or pale yellow, the disease is to be attributed to *some disordered action* of the glands in the passage to the womb, or the womb itself, the effect of local irritation or general fullness." A mild antiphlogistic treatment is recommended. "A pretty common variety of the disease," says Dr. H., p. 40, "consists in a thin, greenish or bluish discharge, &c.," tending to weaken the constitution, and for which all kinds of tonic and alterative remedies are recommended. But the observations are throughout too deficient in precision, to serve any useful purpose. "Some women have the discharge, for a day or two, of a fluid resembling transparent jelly, about the middle of the menstrual interval, the effect of imperfect menstruation." A circumstance which we have never heard complained of, and for which internal means, together with a course of Bath or Bristol waters, and mercurials, are advised by the author.

We come next to a work which marks an era in uterine pathology, upon which it is even now a standard authority, and which is among the first to attach any correct idea of cause to the various forms of leucorrhœal discharge; we mean the "treatise on the Dis. of females attended with discharges, by Sir C. M. Clarke, Lond., 1st ed., 1814." Sir C. C. begins by informing us that Sydenham considers the "fluor muliebris" to depend upon debility, and to be allied to Diabetes. (Epist. de morb. Epid. ab anno 1675 ad ann. 1680). Mead (Mon: et Precept, cap. 19, sect. 3) says, "Hunc autem humorem modo profundunt *canales uterini*, modo *ex glandis* quibus consita est vagina, erumpit. In utraque mali specie, corporis habitus præcipue habenda ex ratio; *ab illius enim vitio* tam hic quam iste morbus originem trahit." Cullen (Pract.) informs us that "serous and puriform discharges from the vagina may proceed from various causes, not yet well ascertained. Leucorrhœa generally depends upon *a great loss of tone* in the vessels of the uterus." Denman's opinion we shall give elsewhere. Heberden, in the 41st chap. of his Commentaries, says, "aquæ similis, interdum tamen glutinosum est et coloris subflavi, enim subviridus, et mali odoris, atque tam acris," &c. The term "sexual weakness," employed by Dr. Hamilton, "deserves," says Clarke, vol. i., p. 31, "particularly to be reprobated." Vaginal discharge, he wishes to have considered "as a symptom and not treated as a disease," and he defines Leucorrhœa as a "discharge from the vagina, varying in consistence, quantity and color; either produced by a *weakness of the constitution*, or by a change in the structure, position or action of the neighboring parts, such change being the effect of natural or morbid causes." Discharge from the vagina, he arranges under five heads. 1st. Transparent mucus. 2d. White mucus. 3d. Watery. 4th. Purulent.

5th. Sanguineous. With the third and fifth of these divisions we have nothing to do. The first is gelatinous, nearly transparent and susceptible of coagulation. The second or white mucus (which is the same as that which we shall call *amyloid*) is opake, perfectly white, resembling in consistence a mixture of starch and water made without heat, or thin cream, easily washed from the finger, readily diffusible through water (a diagnostic fact upon which Dr. Ashwell lays great stress), rendering it turbid. "A morbid state of the glands in the cervix uteri probably gives rise to this discharge," p. 36. The purulent discharge means that of a fluid resembling pus secreted by the surface of an ulcer, respecting which we shall hereafter have something to remark. "The existence of sexual diseases can only be known by an examination per vag., and this should always be proposed and performed whenever there is reason to believe from the symptoms that they depend on any local cause," p. 43. For the remarks of the author on the sympathetic nature of certain phenomena, depending on uterine disease, see p. 2d, and for general arguments in favor of examination, p. 45 and 46, lib. cit. In Procidentia uteri, vesicæ et vaginæ, inversio uteri, hæmorrhoids, ascarides in the rectum and carcinoma of that organ, there exists always a discharge of transparent mucus from the vagina. The 21st chapter is upon the transparent mucous discharge from the vagina, *not* accompanied by any alteration of structure of the sexual organs; the first form arising from, and accompanied by, increased action of the vessels of the part (a rather nice distinction), the 2d, that which arises from debility. Without pretending to deny the existence of such cases, the discharge of the natural mucus of the vagina from mere debility, or in such quantities as to produce evil effects, must, we apprehend, be very rare: respecting the first form, from not using the speculum, the information of the author is deficient. The 22d chapter is devoted to a consideration of the transparent mucous discharge which depends on constitutional debility, or more properly speaking, according to the views of the author, produces extreme debility, for it is to the discharge that he refers the symptoms. The quantity and consistence, he says, are very various, sometimes liquid, at others, ropy. These cases are much better described by Marshall Hall (Obs. on certain dis. pec. to females, &c.) who ascribes the constitutional state to other causes. With all due deference to Dr. C. we think either of these classes of very doubtful authority—but of this anon. On p. 5 of his 2d vol. (1821) we find him treating in extenso of the glutinous white mucous discharge, "which belongs," he says, "*to one morbid state of the uterus only*" (namely, a morbid state, which we shall see that he considers as inflammatory, of the glands of the cervix uteri). "Transparent mucus of the vagina, when entangled with air, looks white and opake, but does not render water turbid." "In many cases the white mucous discharge has the tenacity of glue, and does not flow spontaneously, but remains in the vagina, until in defecation it is squeezed out, and is never met with in larger quantity." Milky discharges probably consist of white mucous discharge, mixed with the transparent mucus of the vagina." "In the greater number of cases of white mucous discharge, few symptoms are produced, but this is not always the case, the patients being attacked by uneasy sensations in the back and lowest part of the abdomen, which gradually becomes converted into pain (increased by riding and defecation, the mucus which adheres to the stools being supposed to come from the anus), irritation about the rectum and bladder, dysmenorrhœa, pain on touching the cervix uteri, &c." "There is, however, no alteration of the structure of the part (?), no thickening, no peculiar enlargement of the os uteri, no breach of surface (?), the portion of the vagina which is reflected over the cervix uteri possessing its usual smooth and polished state" (p. 12). We see in this passage, forcibly displayed, the want of that further knowledge which the speculum only could have afforded. Dr. C. informs us that he has now "no hesitation in saying that whenever the white mucous discharge is present, there will be found, on examination, a tenderness of the cervix uteri, which will be removed, or relieved, by the mode of treatment hereafter to be mentioned." (ib.) Dr. C. knew very well how the part *felt*, but he lacked the knowledge of how it *looked*. "Here," he elsewhere says, "the complaint consisted *of inflammatory action of the cervix uteri*, accompanied by its constant attendant, the peculiar white discharge" (24). In another place he says, "to return to the subject of *inflammation of the cervix uteri*" (p. 57). "A great point is gained," he adds, "in ascertaining the true nature of this disease, of which the milky discharge is symptomatic, for thereby the practitioner is led to direct such measures as may tend to remove its cause, instead of those astringents too often employed in such cases." The "purulent" discharge is either, according to this author, true pus derived from the mucous membrane of the uterus, or from the vagina (gonorrhœa, on each of which there are chapters); but he seems to have had no knowledge of, nor does he allude to that variety of leucorrhœal discharge which is of a yellowish or greenish color, depending equally on inflammation of the os and cervix, not specific, so often, erroneously, as we conceive, designated by this appellation. With him "ulceration" of the os and cervix refers only to the corroding ulcer and carcinoma. Thus, though, in this valuable work, much useful light is thrown upon the causes of certain forms of leucorrhœal discharge, much is omitted that is now known to constitute an important feature in the pathology of the affection, which the sense of sight alone could reveal. To strictly uterine leucorrhœa of the inflammatory kind, there is hardly an allusion. Dr. C. seems to have had no suspicion, that his "transparent mucus," or any other, came from thence, for with him all are "vaginal," and he evidently confounds the two when speaking of the white mucus alone. The inference in favor of the speculum and of further investigation is obvious.

Next in succession is the article in the Dict. des Sc. Med. (1818, vol. 18) by Pinel and Bricheteau. They very correctly observe that "it sometimes depends upon a chronic or acute phlegmasia;" and less correctly add "sometimes on a profound asthenia of the organism, and upon the venereal virus." "It is," say these authors, "in the symptomatic and other analogous lesions, that we must seek the proximate causes of the uterine catarrh; they are the sources of these fluxions, these mobile or metastatic irritations, which affect such or such organ, according to its greater predisposition to disease." The product, they say, of all these causes, "is *irritation and hypersecretion of the vaginal and uterine mucous membrane* often allied to an inflammation of these parts;" but, "in many cases also, absolutely independent of it. Thus we admit an active and a passive leucorrhœa." Accurate autopsic observations made first by Bonetus, Dolfus, Boehmer, Morgagni, and subsequently by others, have proved that leucorrhœa had *exclusively* its seat in the mucous membrane of the womb and vagina, and sometimes also in that of the fallopian tubes.

The vaginal and uterine membrane may be affected in its whole extent, or partially. Blattin found that of twenty-four women, the seat of the disease in thirteen, was the neck of the uterus and vagina; in nine, the womb, and in two, the tubes. According to the combined observations of Morgagni, and several others, the alterations of tissue proper to leucorrhœa are resolvable into swelling and thickening, more or less considerable, of the utero-vaginal mucous membrane, with varying changes in its texture. The os tincæ is generally dilated, reddish, swollen and varicose. The uterine membrane is also soft, puffy and villous, its vessels in certain cases much dilated and varicose. Boehmer found the interior of the womb and vagina of a woman, dying with leucorrhœa, covered with a thick yellowish mucus, the tissue of the membrane soft, porous, tumid, inflamed, and here and there ulcerated." "Blattin," they say, "examined attentively the color of the 'whites' in twenty-two women afflicted with it. Twelve passed, per vaginam, a greenish mucus, six had a white discharge; in the other four it was yellowish, blackish, or bluish. The color varied according to the intensity and chronicity of the inflammation." We learn from the preceding extracts that these authors, adopting the pathology of Morgagni, inculcated a very correct idea of the true nature of one form at least of this affection, though still adhering to the old theory of debility to account for the other.

Denman (Introd. Francis, ed. 1829) says that leucorrhœa "is generally a symptom of some local disease," and so far, well; and also "a consequence of *great debility of the constitution*" (p. 173). He recognizes its two varieties, vaginal and uterine, and speaks of its being local and arising from a *relaxation* of the orifices by which a necessary mucus is discharged on particular occasions" (174). Dr. Francis, in a note, speaks of irritation of the inner surface of the organ exciting increased action and discharge. In Dr. Good's elaborate "Study of Medicine," 1829, the nature of leucorrhœa is slightly alluded to, as uncleanliness, the lodgment of some portion of white menstrual flux, or other irritating material, in the vagina, irritation of the vagina, debility and relaxation, produced by a severe labor or miscarriage."

The view of leucorrhœal pathology taken by Lagneau in his article in the Dict. de Med., vol. 13, Paris, 1825 (1 ed.), is remarkably accurate. He defines it to be "a mucous flux, &c., determined by the more or less acute *irritation or inflammation of the internal membrane of the vagina and cavity of the uterus*, and sometimes even of that of the tubes." "Sometimes the discharge is transparent like the white of eggs; at others it is of a milky white; often it is yellowish, more or less green, and sometimes reddish, or of a slightly blackish tint. Sometimes it is serous and abundant; oftenest it is found viscid like the albumen of the egg, which has undergone a commencement of coction; it has the appearance of cream; sometimes it escapes in large flakes of thick mucus; it has also been seen to resemble true pus. Hence all are now perfectly convinced that it is only *the product of a more or less inflammatory irritation of the membrane which lines the vagina, uterus and tubes;* which idea, an attentive examination of these organs sufficiently attests. In fact their interior is then usually found tumid, furrowed by varicose vessels, sprinkled with tubercles or granulations, which are due only to exaltation of the vital properties of the mucous follicles of the inflamed membrane. It is also spread with a more or less viscid mucus, differently colored, sometimes rather odorous, and in certain cases, patches more or less brown, as if gangrenous, and at other times true ulcerations, have been observed upon them." It is difficult to improve upon this condensed general view of this point of pathological inquiry.*

The second edition of the work of our late distinguished countryman, Dr. Dewees, of Philadelphia, was published in 1829. In it, we find him asserting that leucorrhœa, "even at the present day, is ranked by many among the *opprobria medicorum*." He divides it into the *inflammatory*, acute and chronic, or gleety, that of remote or indirect irritation (sympathetic), and that of habit. Under the first head are included all such instances of the disease as follow an *active inflammation of the mucuos membrane of the uterus or vagina*, produced by some local cause, *or from simple inflammation of the parts* (219)." He quotes Gardien as saying "that acute uterine catarrh is a purely local affection, depending on a peculiar irritation of the genital organs." It offers four periods: in the first the discharge is serous; in the second, greenish or yellow, becoming in the third, thicker, and offering shades of color, until it grows entirely white, when it diminishes. The fourth period, which forms the passage to the chronic state, presents many irregularities, the disease disappearing for some time and returning without obvious cause. That of which the matter is flocculent, or resembles gluey threads or jelly, is most commonly difficult of cure" (Mal. des femmes). Dr. Dewees is of opinion that the disease rarely proceeds from the cavity of the uterus, even in its most aggravated forms (p. 222), an erroneous idea which a few examinations with the speculum, had he been familiar with its use, would have dispelled; but with infinite propriety he disputes (and he is the first to do so distinctly, nor have many followed his example) Cullen's theory that it proceeds from "weakness of the vessels," adding that "Dr. Cullen does not stand alone in this assumption, for most of the writers have yielded to the same erroneous opinion; thus Chambon, Denman, Leake, Vigarous, Gardien, Capuron, Burns, &c., all talk of debility, either local or general, as the cause of leucorrhœa. Even Mr. Clarke joins in the same belief." Dr. D. next cites John Hunter's opinion that "weakness gives us no idea of a disease," and his remark that "when the expression is applied to animals performing an uncommon or additional action, I do not understand it." (Treat. on Gleet.) Dr. D., however, acknowledges that from excess of quantity or peculiarity of quality, the system frequently becomes involved. "The physician," he says, "will find it best to be very particular in his inquiries respecting the quantity and appearance of the discharge, as by them alone he can determine the actual state of the disease (p. 230)." The following passages contain Dr. D.'s view of the pathology of the disease, which he understood much more correctly than most of his predecessors, and the accuracy of which, the aid of "ocular demonstration," as our cases will show, has abundantly confirmed. "It may appear a gratuitous assumption to those who make leucorrhœa consist solely in a weakness of the uterus and vagina, to declare that, in the first stage of this complaint, *an inflammation really exists in the neck of this organ. But such is the fact*, at least so far as certain phenomena, without the aid of ocular demonstration, will warrant such a conclusion" (231). "We declare, that until it becomes the leucorrhœa of habit, *local inflammation is always present*, and that with this state of the neck of the uterus, the system sometimes sympathizes so much, as to require depletion" (235). For want of more accurate knowledge, the inflammation of the uterine mucous membrane is not here alluded to. "In the second stage, the character of the fluor albus, which is more abundant, is changed; it is now of a deep white or yellowish color, resembling thick cream which has stood some time. This stage consists of *an extension of the inflammation* with which the first stage commenced. It has now spread to the vagina, the surface of which, at this time, principally furnishes the fluid discharged" (237). The inaccuracy of this latter statement we shall hereafter show. "In the third stage, there is aggravation of inflammation and symptoms, and the discharge is of a greenish color and frequently tinged with blood." M. Capuron (Tr. des Mal. des femmes, Brux., 1833) asserts most correctly, that "this disease is nothing more than *a chronic or acute inflammation of the mucous membrane* which lines the interior of the uterus and vagina" (72). But unfortunately, he tells us elsewhere, that "chronic leucorrhœa is purely local, and depends wholly on *atony* of the uterine system (74), on diminution in the vital properties of the mucous membrane which lines these organs" (74), and that when leucorrhœa is chronic, it depends on general feebleness of the woman, or atony of the uterus" (76). Thus is the statement made in the first extract directly contradicted, and the old error perpetuated and reproduced.

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* The new edition of the Dict. de Med., we have been unable to obtain for notice

In the elaborate work of the late Dr. D. D. Davis, of London, entitled the Principles and Practice of Obstetric Medicine (1832), which, though faulty in minuteness of detail and turgidity of style, abounds nevertheless in interest and instruction, and is most ample in references, is a long article, in which the "proximate cause or causes of leucorrhœa" are thus summarily dismissed; "they are, in common with those of most other diseases, involved in much obscurity. They must, of course, consist in morbid actions of the muciparous glands, exhalent arteries, and possibly of some other primary tissues of the mucous membranes concerned in their production." His account of the state of parts relatively to the pathology of "uterine and vaginal catarrh" is taken from Morgagni and Blattin. The following remark appears to belong to the author himself. "The orifice of the uterus is found, *even in the simplest cases of uterine catarrh*, to be in a state of more than ordinary devolopment. Its lips are also frequently felt to be unusually prominent and elongated. *If inspected through a speculum, they may sometimes be seen much swollen, tinged with red blood*, and the seat of varicose enlargement of their veins." (351.) At p. 352 we are told that "the principal morbid condition of production of discharge *is an inflammation of the uterus*, with or without a state of great relaxation of its tissues, *and an analogous affection of the mucous membrane of the vagina*;" but, except in cases of highly acute forms of the disease, we do not find this principle applied to practice, nor any notice taken by Dr. D. of the treatment of the local lesions, evident upon ocular inspection. The old treatment by tonics and astringents is elaborately detailed and recommended. It cannot be denied, however, from the perusal of the extracts above made, that Dr. D. possessed a correct, though somewhat limited view of the true pathology of this affection.

Dr. Gooch, in his Lectures on Midwifery, Am. Ed., 1832, p. 44, acknowledges the distinction between uterine and vaginal leucorrhœa, but is wholly silent as to its pathology. "The treatment," he says, "is to a great extent empirical."

The article "Leucorrhée," in the Dic. de Med. et Chir. prat., Paris, 1834, is very brief and from the pen of Dugès. "True, or essential leucorrhœas consist," he says, "only in a certain degree of irritation or inflammation, more or less chronic, of the internal surface of the uterus, and notably of its neck, perhaps only of its mucous follicles, or of the vagina." He makes two varieties: the sub-acute, which is a true inflammation; the chronic or passive, which is an as thenicflux, there being no symptoms of irritation in the womb, and as the discharge is stated to be gluey or lactescent, probably a mere increase of follicular secretion.

The article in the Cyclopedia of Medicine (London, 1834), is from the pen of Dr. Locock, accoucheur to Queen Victoria of England. In it, we are very correctly informed that the leucorrhœa "is looked upon by the patients themselves, as the cause of ill health, or of the symptoms under which they labor; *whereas, in the majority of instances, the discharge itself can only be considered as a symptom, the effect and result of local or general disorder.*" The word "general" is an unfortunate addition. "So many of the vaginal discharges," he continues, "depend upon uterine disorganization, or some alteration of the position of that organ (?) that it is advisable in every case, to make, where possible, a minute examination per vaginam (not per speculum?) so as to ascertain the exact condition." (p. 34, vol. 2d.) The simplest form of leucorrhœa," says Dr. L.," is a mere increase of the natural secretion from the mucous membrane of the vagina, perhaps of that of the uterus and fallopian tubes." This we shall show to be of rare occurrence at all, and seldom unconnected with inflammatory action: mostly, if not always follicular. "Dr. Jewel states his impression to be, that it seldom issues from the uterine cavity, but from the cervix," which, says Dr. L., "is by far the most common form of the complaint," a conclusion, the accuracy of which may be fairly doubted. "In general," says Dr. L., "we shall find great symptoms of debility, accompanying long-continued leucorrhœa, *but the debilityis nearly always the consequence and not the cause of the disease.*" This truth we commend to the notice of the reader. "It is an acknowledged fact," continues Dr. L., "that whenever the general health is broken down and much constitutional weakness occasioned, local disease is often the result." "Besides inflammatory action, acute, chronic, or subacute, a very large proportion of cases of leucorrhœa depends apparently on *irritation*, differing from inflammation, yet easily running on into it." To this statement, as it respects the proportion of cases, our own experience compels us respectfully to dissent. "Purulent discharges from inflammatory action may also take place from the mucous surface of the vagina, independently of gonorrhœa from impure connection, without organic disease, and solely from a diseased condition of the natural secretion of the part" (35). This statement is pathologically inaccurate. "If the purulent discharge depend upon inflammatory action (how else can it occur?) it is not solely to a diseased condition of the natural secretions, but to a true organic disease that its presence must be traced." Such a statement, from such a writer and in such a work, surprises us greatly. "All these forms may end in chronic leucorrhœa, when the discharge is more or less profuse and constant, mucous or purulent, or a mixture of both; it may become green, or offensive, and *yet be the result only of functional disorder*" (p. 36). This statement we believe to be equally unfounded. No allusion is made to the state of parts as seen by the speculum, and the only practical dictum founded upon it is that "if the cervix uteri is particularly affected, leeches may be applied to the os uteri itself," &c. (37.) The reader, we are sure, will agree with us in considering this view of the pathology of leucorrhœa, as behind that of the age in which it is written.

The "Practical Treatise on the diseases of the uterus" by Boivin and Dugès (we quote from Heming's Translation, London, 1834), chap. 7, p. 381, "of muco-uterine discharges," is, so far as pathology at least is concerned, incomparably the best extant upon the subject of which it treats, and must be considered as the standard with which all past and future volumes must be compared. Accomplished anatomists, veteran practitioners, adepts in touch, and invariably combining with it ocular examination by means of the speculum, which one of the authors has so much contributed to improve and popularize, it is to their work that we must refer for correct ideas as to the real nature of the diseases of the genital apparatus of the female. "With regard to the cervix," say they, "it is well known that it has numerous follicles, and secretes a viscid and abundant mucus in its natural state, and that leucorrhœa is an accompanying symptom of many affections in which the cervix only is diseased. Hence the uterus, and especially its cervix, ought to be considered as the source of most simple leucorrhœal discharges. There are some, however, which proceed in a great measure, if not entirely, from the vagina, or at most from the vagina and os." (384.) "We have arranged it as a form of chronic metritis." (ib.) B. and D. make two forms; subacute, or sthenic and chronic. "The former is really inflammatory; the discharge soon becomes viscid, yellow or yellowish, often greenish, sometimes glairy, sometimes more fluid and puriform, staining the linen with a greenish yellow color as it dries, and imparting to it a degree of stiffness like that of starch. Afterwards it becomes often white and lacteous, sometimes mixed with slimy matter almost transparent, or consisting solely of this matter, resembling the mucus secreted by the pituitary membrane. The inflamed state has then almost entirely subsided. The disease may now become chronic, the color and quantity of the discharge having generally appeared to be more viscid, or high colored, though not always more abundant, in proportion as the inflammation was more acute."

M. Melier (Mem. de la Soc. Roy. de Med.), they say, "is in favor of injections into the uterus, as a means of curing chronic inflammation of the mucous membrane of the interior of the cervix uteri, an affection which he thinks very common, and characterized by redness and swelling of the interior of the os, to which he attributes most cases of sterility, as much in consequence of the obstruction of the cervix, as of the disease being communicated to the ovaria by continuity of tissue." "Although, in many cases, the passive mucous discharge is a consequence of the subacute form, protracted and recurrent, there are, nevertheless, cases in which this *weakness* proceeds originally from relaxation and general debility. (?) When the mucous discharge is abundant, it stiffens the linen as it dries, and generally stains it of a greyish color deepest at its borders."

The 4th chap. is on chronic metritis, congestion and induration, p. 351. "Chronic inflammation assumes different forms, corresponding with its specific causes; these forms are four: congestion, ulceration, granular inflammation and mucous discharge, which are doubtless often combined." "Mucous discharge is frequently absent, and more commonly found in chronic metritis, with, and sometimes without, congestion." (355.) "One of the labia of the os is sometimes alone affected, while the opposite one retains its ordinary firmness and volume." The color is generally redder than usual in such cases, in the points primarily affected, and so much the more as the inflammation assumes the acute form; a little blood often transudes from these parts, when powerfully compressed by the edge of the speculum, as the finger also recognizes in the examination per vaginam." (356.) Chap. 5, is on "simple ulceration of the os." p. 366. Dupuytren observes (Clin. Lectures), that "the cervix and os being received into the speculum, a superficial ulceration is perceived on one or other of the labia of the os, as red as a cut surface, not deeper than the mucous membrane, resembling the ulceration of the nose, called ozœna, and occasioning, if not removed, fatal results." Jobert observes, that the extent of the ulceration varies from an inch to that of a lentil, in which latter case, usually, several exist, which are often finally joined together "*with*, or without *leucorrhœa*." (368.) Several of the cases detailed by the authors, we shall copy under the second head of our essay. Upon the subject of chronic affections of the organ, the work of Duparcque, a Treatise on functional and organic diseases of the Uterus, Phil., 1837 (translated by Warrington), is able and explicit. Of engorgements, the sanguine, the hard and the inflammatory, none gives a better account, or suggests a more rational method of treatment; but the subject of uterine discharges, hæmorrhagic excepted, has not in an equally direct manner engaged the author's attention. The following passage proclaims at once an important practical truth, while it points out the only method in which this class of diseases can be properly studied and successfully remedied. "I resolved not to give any advice, nor to undertake any treatment of the diseases peculiar to women, without being at the outset assured of the state of that organ, and informed by a scrupulous examination, whether the marked phenomena for which I was consulted, were *essential, or symptomatic* of some affection of the genital organs. It is by pursuing this course, which alone promises results important to science and humanity, that I have been able particularly to declare that *the greatest number of uterine discharges*, usually considered as primary and essential, *are merely symptomatic of a special engorgement either of the whole of the uterus, or affecting the neck alone*." (104.) Speaking of inflammatory engorgements, he separates the parenchymatous inflammations from that of the serous envelope, and *from that of the mucous membrane which lines the internal surface, and constitutes a peculiar marked character, designated* uterine catarrh," to which, or leucorrhœa, no distinct allusion is made. "As," observes Dr. D., "engorgements, more or less voluminous, may exist without causing discharges, we very naturally conclude that when they do exist, they depend, not on the alteration itself, which, it appears to us, ought rather to suspend those of which the part affected may be the seat, but on accessory circumstances, such as the previous and habitual existence of a vaginitis, or uterine leucorrhœa, or the development of this discharge, which the presence of a tumor resulting from a hard engorgement of the neck would produce upon the vaginal canal." (200.) "Vaginal discharges can furnish no diagnostic signs of the existence and nature of the hard engorgement of the uterus," p. 201. Of primitive ulcerations of the uterus, he makes three forms. 1st, Primitive ulcerations, which are superficial, and without especial engorgements of the tissues they involve. 2nd, Those which have a tendency to extend themselves more deeply, and make indefinite progress, without there being always necessarily a profound engorgement of the tissues in which they occur.

3rd, Primitive ulcerations, with a hard base, more or less thickened, but in general superficial." The following is his description of "simple erosion, ulceration, benign ulcer of the neck." "The ulceration is superficial, and appears only to have destroyed the epithelium, or mucous layer, which covers the neck of the uterus. It may extend superficially to all the surface of the os; sometimes, however, it is less extensive and rather deeper; in all cases, the part which is the seat of it, does not offer any remarkable engorgement, other than the slight one which the inflammation accompanying the ulceration might produce. The edges are slightly prominent, and of a red color, which extends like an areola for half a line or more, gradually decreasing as it spreads; the surface is smooth, covered by a yellowish finely granulated layer, of more or less lively red; a puriform, filamentous and sometimes sanguinolent fluid exudes from its surface. Whenever a woman experiences a troublesome pruritus, burning sensation in the fundus of the vagina, with painful coitus, although menstruation be regular, ulceration may be suspected, and should be tested by the touch and speculum." (340.) The favorite work of Churchill, on the "Diseases of Females, 1839," is perhaps the best compilation in English on the subject, and gives generally a very correct view of the pathology of the disease under consideration. Under the head of "*Vaginal* Leucorrhœa, fluor albus, whites, &c.," he says, that this "inflammation of the mucous membrane of the vagina (vaginitis), has two forms, the acute and chronic. The discharge is at first thin and colorless, becoming whitish or yellowish and much thicker (puriform), resembling cream. The mucous membrane of the vagina is swollen and puffy." "Chronic vaginitis is perhaps the most common of all the diseases to which females are subject." "From the constitutional peculiarities of some patients, and very often induced by the disease itself, *the discharge has been attributed to relaxation and debility.* If, however, the local symptoms be carefully estimated, and their progress retraced, sufficient grounds will, I think, be found, for considering *the local disorder as inflammatory.* The patient complains of a more or less colorless, or whitish discharge from the vagina, of a bland character; in other cases brownish and acrid." C. has a separate chapter on inflammation of the glandular structure of the mucous membrane of the cervix; it is wholly made up from Clarke, and he says nothing of his own respecting it; another from Boivin and Dugès, on granular inflammation of the neck, the usual symptoms of which, he says, are pain and discharge. We incline to think that had Dr. Churchill made a more frequent use of the speculum, in cases which have come under his observation, he would have come to a different conclusion respecting the comparative frequency of uterine and vaginal leucorrhœa, and have pointed out with greater accuracy the kind of discharge which is furnished when the latter exists alone. Puriform discharge from the vagina, except when occurring in cases of true gonorrhœa, is exceedingly rare, and almost always it is the milky white thin fluid which escapes; nor is it this form of leucorrhœa which is generally submitted to the examination of the physician, but that rather, in which the neck and cavity of the uterus are diseased. Nevertheless, Dr. C. has pointed out very plainly, more so than perhaps any of his predecessors, the distinction between the uterine and vaginal forms of the disease (chap. ix., p. 96, Phil. ed.). This distinction, he says truly, as appears from the quotations we have made, had been observed by

Blegny, Morgagni, Baglivi, Manning, Leake, Denman, A. Hamilton, Burns, Nauche, Boivin, d' Espine, and others. The two may be combined. He quotes from Marc d' Espine the speculum appearances, although, as these were made in a venereal hospital, no inference can, he says, be drawn from them as to the nature of the discharge. In most cases it is nearly colorless and transparent, but has been seen brownish or greenish, thin, gelatinous or curdled. "We know," says Dr. C., very justly, "that in many cases of constitutional weakness, the cause must be sought in the inflamed condition of certain organs. In the present instance, this appears to be the case, for if we consider the local distress, the increased secretion, the course of the disease and its remedy, *we can have but little hesitation in attributing all to the effects of inflammatory action, generally sub-acute or chronic, of the mucous membrane lining the uterus.*" The 14th chap., p. 128, is on "simple ulceration of the cervix uteri." The presence of leucorrhœa is uncertain (Jobert); towards the end of the inflammatory stage it may now and then be observed." This statement is in direct contradiction to the results of our own observation. The description of the ulceration is made up from Duparcque, Boivin and Dugès, Lisfranc, and others, and the disease is said to consist of inflammation running into ulceration, not malignant. But the chapter affords no evidence that Dr. C. possesses any personal knowledge of these cases. The well known text book of Dr. Burns of Glasgow, entitled "the Principles of Midwifery, 11th American edition, 1839," is very inexplicit upon the subject of the pathology of Leucorrhœa. "In a diseased state," he says, "the balance between absorption and secretion is disturbed, and the quantity of secretion greatly increased; the discharge, whether proceeding solely from the vagina, or partly also from the womb, receives the name of fluor albus or leucorrhœa." "The discharge itself may consist of the natural mucus of the part, increased in quantity, glairy and transparent, opaque like milk, which is particularly the case when the organs of secretion of the upper part of the vagina and cervix are affected, or it may be purulent." (?) "We also occasionally meet with a discharge like jelly, sometimes turbid, and sometimes clear and amber-colored. It proceeds from the cavity of the uterus, particularly its cervix, and seems to depend on a state produced *by present or previously existing inflammation*" (74). Dr. Burns appears to think that there are cases in which the origins of the nerves influencing the secretion are affected, but he conceives that debility can act only as a predisposing cause. He speaks of a chronic inflammation of the whole uterus, or cervix, with white mucous discharge, which sometimes becomes puriform, and often bloody. The uterus is enlarged, but not indurated; the cervix more or less increased in circumference, and its surface may feel rough, as if abraded (85) "The uterus," he says, "may, *from inflammation*, become ulcerated like any other part, purulent matter is discharged, &c., and sometimes the finger can discover the ulcer. Simple ulceration is very rare, &c." (87). We find in this chapter no allusion to the use or advantages of the speculum, and cannot therefore wonder at the meagreness of its details, nor the inaccuracy of some of its assertions. Another proof is here furnished, that without it, the true pathology and treatment of the disease cannot be understood.

None have, perhaps, written on the subject of uterine diseases from a longer experience,nor in a more practical manner,than the celebrated Professor Lisfranc, of Paris, and from two of his works we shall quote numerous passages which will serve to illustrate amply the pathology of the affection which now engages our attention. In the American reprint of his Lectures (Phil., 1841) we find him saying, that leucorrhœa may without doubt arise, in the first instance, *from the vagina alone*, and extend thence to the uterus, constituting the vagino-uterine catarrh. But after an uncertain period, and sometimes very shortly, *the uterus becomes engorged*, and the catarrh, which was at first the principal affection, *no longer constitutes anything but a secondary symptom.* In many cases, also, the disease pursues a course inverse to what we have mentioned, and *commences by engorgement of the body of the uterus.* The discharge, which arises at first from the mucous membrane of the vagina, does not always come from the same morbid condition of the parts. At an early stage, we find a simple injection of the membrane, with more or less swelling. At a later period we have infiltration, induration and ulcerations of the vagina or neck, and finally vegetations. *From this enumeration it is manifest how necessary it is to explore attentively the vagina, neck and body of the uterus, in cases of whites*, and to regulate by such examination, the essential modifications which the treatment must undergo." After alluding to various methods of treatment, among which are injections into the uterine cavity, he says that "if the disease be kept up by chronic ulcerations, vegetations or engorgements of the uterus, we can only hope to remove the effect radically by acting on the cause which produces it. (112.) "In almost all women affected with abundant discharges from the uterus, *we find the posterior lip of the uterus red;* this state of injection seeming to depend on the contact of the fluid secreted by the uterus, in the same way as the tears cause redness, and even excoriation of the cheek, in epiphora. They are of little importance in themselves, but the mucous membrane may finally become altered, unless the catarrhal state which has given rise to them be attended to." (131.) After speaking of reddish-brown partial elevated injections of the neck, sometimes formed by a network of small vessels, he says, "they are, in all cases, accompanied by simple engorgement of the part, the mucous membrane being soft, thickened, velvety, and bleeding very readily. As these injections sometimes terminate in inflammation, they merit particular attention." "We sometimes see the neck of the uterus marked with small miliary vesicles, discreet or confluent, limited to a part of the neck, or occupying its whole surface. When these vesicles burst, they give rise to small superficial ulcerations which often unite and form excoriated spots of some extent. Sometimes, instead of vesicles, we find pustules of a larger size, in greater or less number, and very similar to apthæ." (132.) "As the lower lip of the mouth is commonest affected, so is the lower lip of the os tincæ. However, ulcerations may exist in other parts: for instance, between the two lips, when they may escape notice unless the precaution is taken to raise up the anterior lip; or higher up, near the cavity of the uterus; in which latter case, their existence can be detected only by the touch. The neck, usually dilated, permits the finger to penetrate, and instead of the polished, serous-like surface of the healthy uterine mucous membrane, we find it thickened and flocculent, and though touched delicately, the finger is often stained with blood." "Ulcers of the uterus are sometimes confined to simple excoriations; at others, they exhibit a slight excavation, and in many cases the mucous membrane being thickened, and the edges swollen and prominent, they appear deeper than they really are. Sometimes the bottom of the ulcer is rough, and divided by fissures, or, it may be, covered with fleshy granulations, which, in certain cases, assume a fungous appearance, and have been mistaken for carcinoma. It is not always easy to distinguish a simple injection from an excoriation or ulcer. If it bleed, on touching it with lint, it is probably an excoriation or ulcer, which bleeds readily. This always shows that the uterus is gorged with blood. During the epidemic cholera, we had anatomical proof of the simplicity of these ulcerations. Several of our patients died, and the mucous membrane was found red, softened, and a little fungous; the ulceration was superficial, and beneath it, the tissue of the uterus was sometimes superficially affected and soft, at other times perfectly sound." (133.) We now come to notice the great work of this author, entitled, "Clin. Chirurg. de l'Hopital de la Pitié. Paris. 1842. 3 vols. The 2d volume, consisting of 740 pages, is, with the exception of one article, wholly devoted to a consideration of the diseases of the genital organs of the female; and for accuracy of diagnosis and practical detail has few equals and no superior. In the chapter on "Diseases of the Womb and the numerous errors of Diagnosis," we find him stating the well-known fact that the uterus is the focus whence irradiate many painful affections to which the female is liable, and which they attribute to other organs, cautioning us, very justly, on the other hand, against the influence of preconceived ideas, and seeing in everything an affection of the womb. The employment of the touch and the speculum is, in these doubtful cases, indispensable. "A lady had long been affected and uselessly treated for a so called renal pain. The uterus was engorged and slightly eroded. These were cured, and the pain disappeared." (189.) Speaking of fluor albus, he says, "we maintain, and our opinion is based upon thousands of facts, that oftenest the discharge *is only symptomatic, and produced either by an ulceration or by an engorgement of the uterus*, a capital distinction, &c." (207.) "I am convinced that of twenty women affected for at least a month with a free discharge of whites, in eighteen *there exists in the womb or vagina a more or less deep organic affection.* The leucorrhœa, which at first may have been the cause of this affection, becomes its symptom. From the considerations which precede, we conclude that it is indispensable, when rather abundant whites exist, to practise the touch and to apply the speculum, so as to assure oneself of the state of the vagina and uterus, and avoid errors which I see daily committed." (208.)

"Leucorrhœa," says this author (p. 298), "is produced either by an inflammation or by an irritation, or lastly either by an injection or else a sanguineous affluxus seated at once upon the vulva, the vagina, or the inner surface of the uterus or uterine tubes, whence arises a discharge so designated. Leucorrhœa shows itself commonest in the vagina; is least common in the womb and vulva, and is very rarely seen in the tubes. In Paris, London, and many other large towns, it is frequently endemic. One of its most potent causes is the use of coffee and milk. In the number of these must be ranked prominently, erosions, excoriations, and simple ulcerations of the neck of the uterus. In most cases, when these are healed, white discharges disappear, which, previous to cauterization, had resisted every means employed. Engorgements of the uterus are a very frequent cause of leucorrhœa, which ceases only on their disappearance. It may first cause the engorgements, and may afterwards be kept up by them; the latter often occasion it!" (303.) Respecting the pathological anatomy, Lisfranc quotes Bonetus and Morgagni. "I have seen," he says, "sometimes the mucous membrane generally pale, infiltrated, and offering some indurations. It is not rare to observe an engorgement, either of the neck, or body of the uterus, this pathological state existing at the same time in one or other of these two parts of the organ." Sometimes, he says, the fluid is sero-caseous, like albumen submitted to coction. The mucous membrane secretes a fluid sometimes purulent, sometimes creamy and flocculent; again he says, "whites are sometimes sero-purulent, or sero-sanguineous, and are so little bland that it is very rare not to see the lower part of the vulva and posterior lip of the os tincæ red." The chronic state is either developed primarily, or else is the termination of acute inflammation. The mucous membrane may be pale, white, and, as it were, macerated; it is commonly of a deep red, the os uteri is open and very often engorged." The 3d volume of this work, which, like the 2d, with a single exception, is devoted to the consideration of female diseases, contains a chapter on the "morbid rednesses, pustules, apthæ and granulations which are seated on the neck of the uterus" (p. 518), from which we make the following quotations. "Morbid redness may invade all the neck, or only a greater or less extent of it; it is often seen in isolated patches, now discreet, now confluent, varying in size, number and form. It is commonest on the posterior lip. It is extremely rare not to see it here, when the woman is affected with uterine catarrh, the matter of which is almost constantly in contact with the posterior part of the lower extremity of the uterus. Engorgements of the womb and leucorrhœa are among the causes. They may exist with or without hypertrophy or catarrh of the organ. The symptoms are *inter alias* white discharges in all their varieties; ordinarily they offer slight elevations, as seen by the speculum; if when rubbed, they do not bleed, they are not excoriations. They are either deep or superficial; in the latter case their color is evanescent on pressure, returning immediately on its cessation. They may produce hypertrophy, and when long persistent, ulcerations. They are ordinarily permanent, sometimes fugacious." A common error of diagnosis, according to the author, occurs in this way. The uterus exerts its morbid sympathies on the nervous system, or intestinal canal for instance. The symptoms of an uterine affection are null; the touch imparts no information; but we must not always conclude that the uterus is healthy. We must apply the speculum, "for it is not rare to see upon its lower extremity, excoriations, erosions, superficial ulcerations, or morbid rednesses, which have escaped other means of investigation, and which, misunderstood, continue to exert their injurious influence, sometimes on the functions in general, sometimes on a particular organ. These morbid affections may increase in a more or less latent manner and become at length difficult, if not impossible of cure" (523). Respecting the "pustules" we shall only say that they may cause ulcerations and engorgements; "apthæ" often disappear without causing ulceration. Of "granulations," as the account given by the author does not differ from that elsewhere quoted, we shall not repeat it; they are often accompanied by the symptoms and pathological states of chronic metritis.

The next chapter is upon "ulcers of the womb, not carcinomatous." These solutions of continuity are designated according to the depth to which they affect the tissues, as erosions, excoriations, or ulcerations, deep or superficial. Any part of the neck may be affected by them: enlarging, they sometimes widely involve the vagina. They are sometimes observed in the os tincæ; it is dilated, allows of the introduction of the finger, which finds the mucous membrane not smooth and polished as usual, but thickened and tomentous ; ulcerations, vegetations and indurations are often recognized. The ulcer may be seated on the corresponding surfaces of the lips of the os, which tumefy and elongate much. This can only be seen by pressing between them the closed flat blades of a smooth forceps ; when they are opened, their detection is easy. The posterior lip of the os is oftenest affected, for a reason before assigned. These ulcers are single, or multiple, or uniting, constitute but one. Sometimes the epithelium is alone removed ; at other times there exists a slight excavation ; in other cases, the mucous membrane increases in thickness ; the edges of the ulcer are tumid and prominent, it then appears deeper than it really is ; it extends sometimes to the tissue of the uterus, which it more or less deeply involves. They are often associated with induration and hypertrophy of the organ of gestation. "In uterine engorgements, the existence of ulceration is the general rule ; its absence, the exception" (536). Among the causes, in addition to what have already been named, we find, hypertrophy, simple, or with induration ; chronic metritis, leucorrhœa. These ulcerations have sometimes a raspberry aspect ; or the surface is "chagrinée" and intersected by fissures ; in many cases, it is granulated. Before being wiped, the solution of continuity is greyish : this color is usually succeeded by that of cellular tissue cut and recently inflamed. Fleshy granulations are soon developed in most cases, often becoming luxuriant and soft, bleeding with great facility ; at other times hard, growing rapidly and attaining to great size. Sometimes they throw out roots penetrating deeply into the uterine tissue. In dissecting some of these ulcers, we meet with accidental mucous tissue. The surface of the ulcer is then red or greyish, polished, soft and shining as if varnished ; it yields an abundant suppuration, sometimes grey, pink, or whitish, capable of so irritating the mucous membrane as to produce a *leucorrhœa* which depends on the presence of the ulcer and is cured with it. The non-carcinomatous ulcer of the uterus either causes, keeps up, or increases hypertrophy ; has a slow tendency to heal : is stationary or spreads rapidly ; its edges are sometimes everted or bevilled, and it exists with or without hypertrophy of the tissues which surround it (540). Some superficial ulcers bleed easily, even by contact with the air. This shows the womb almost always to be gorged with blood : and occasionally they are followed by a varicose or fungous tumor, which is often fatal (542). On a scrupulously attentive dissection of the neck of the uterus, affected with ulceration, in women who died in the Pitié Hospital of the cholera, the mucous membrane was red, softened, a little thickened and excoriated, the tissue of the uterus beneath was sometimes slightly and very superficially altered and easily torn, at other times perfectly healthy, or only engorged ; yet all the symptoms may have been those which characterize cancer (543). Although often latent and insidious, the symptoms of non-cancerous ulcerations of the womb are for the most part marked ; among them pain, weight, floodings, *leucorrhœa*, &c., *in a word, all the morbid phenomena occasioned by chronic metritis*, by uterine engorgements not too far degenerated (546). Ulcers of the cervix uteri are sometimes obscured by a tawny pellicle of an albuminous nature, or a thick glairy layer ; they must be wiped, in order to establish a certain diagnosis (552). Non-cancerous ulcerations of the neck of the womb almost always get well when suitably treated, and seldom become cancerous. The average period of cure is from three to six months ; some, however, are much earlier, or infinitely later in cicatrizing; although the non-cancerous ulcer of the womb *may* get well without cauterization, as other ulcers do, *they do not do so generally.* "I even assert, that after the many observations I have made for twenty years past, without this cauterization, the cure of these solutions of continuity is very rare." (579.) In concluding this hasty sketch of the pathological observations of M. Lisfranc we have only further to say that the reader will find the treatment, and especially that part of it which consists in the cauterization of the ulcerated surfaces, exposed in this practical volume in full detail.

The contrast between the work just quoted and that which follows, is not to the advantage of the English author. In the "Lectures on the Functions and Diseases of the womb," by Waller (Phila., 1841), a work justly pronounced by the highest medical critical authority extant, to be "meagre and unsatisfactory," we find no separate notice of leucorrhœa, although to the English edition a supplementary chapter on the subject is appended, which not being republished here, we have not seen. It is incidentally mentioned in a section on Inf. of the os and cervix, copied from Dr. Clarke. On the subject of "common ulceration of the os" (p. 47), which is despatched in twelve lines, it is said, "the discharge of the vagina will be mingled with that of the ulcer, whence it appears purulent and bloody. Examination per vaginam in the ordinary manner *will generally discover the nature of the case*, or, you may use the speculum, an instrument of unquestionable utility, but, I think, oftentimes unnecessarily employed. The common method of examination is offensive enough to the feelings of a modest woman, and how much more must that feeling be shocked by *a complete exposure of the person!*" The inaccuracy of the views set forth in this passage, as well as the prejudicial influence on practice which they are calculated to produce, need no comments. The circumstance last italicised is as totally unnecessary as it is to be hoped that it is uncommon. In the New York Medical and Surgical Journal, January, 1841, Dr. Isaac E. Taylor has published a report of cases of female diseases occurring in his service at the City Dispensary. Two of these we shall hereafter mention, as connected with the subject we are now considering. We do not find that Dr. Taylor makes any distinct allusion to leucorrhœa as a symptom of inflammation of the uterus. He has a few lines on "L. vaginal and uterine," in which, however, no mention is made of its proximate cause. "Frequently," he says, "it is owing to catamenial derangement, and in some, the result of debility." In the same number of the same journal, is a paper, which for its extent is one of the most practically useful with which we are acquainted, entitled "Remarks on Engorgement or Congestion of the Cervix Uteri," by Dr. J. C. Beales, of this city. "I trust I shall be excused," says Dr. B., "for more particularly drawing attention to it, as the extreme frequency of its occurrence renders it of importance, and I do not know of any English or American author who has sufficiently noticed it." The history of the disease, as given by the author, is excellent; the speculum receives its proper share of praise; the treatment advised is perfectly appropriate; but no direct allusion is made to the disease being the cause of Leucorrhœa, nor to the fact that the latter is oftenest symptomatic of engorgement. Some of the interesting cases furnished in the essay, we shall hereafter present to the reader.

The article on Leucorrhœa in the Library, or System of Practical Medicine, edited by Dr. Tweedie (Am. Repr., 1841), is from the pen of the distinguished Dr. Ferguson of London. It consists of much that is unexceptionable, mingled with much that is of doubtful correctness. " In the majority of cases," says Dr. F.," we are of opinion that the seat of the discharge is vaginal." " The forms of Leucorrhœa are either acute or chronic. In the former, the symptoms are those of inflammation of the mucous membrane, pain, heat and swelling ; at first a thin exudation like that in common catarrhal inflammation of the Schneiderian membrane, then, thicker, and lastly *purulent ;* in the secretion of pus, the pain and swelling abate." " One form of leucorrhœa depends on constitutional causes and local irritability, and there is a reverse state exhibited in the leucorrhœa *of debility ;* a 3rd class depends on sympathetic irritation ; a 4th class act purely locally, giving rise to irritation and inflammation of the uterine system." This is the only notice of truly inflammatory leucorrhœa, and Dr. Dewees is said to be exclusive in considering all forms of leucorrhœa as reducible to this class. Congestion of the uterus, and chronic metritis with ulceration, are mentioned, but nothing is said as to leucorrhœa being one of their accompaniments : but of suppurative chronic metritis, we are told, " to this form we refer almost all those cases of leucorrhœa in which the discharge proceeds from the mucous membrane of the uterus itself," a very proper and practical admission. Other forms of chronic metritis are mentioned, in all of which, it is said, " the peculiar mucous secretion of the lining membrane and cervix of the organ is increased, and often alters more or less to a purulent character." A very just compliment is paid to the speculum, and we are told (p. 474) that " in no department of practice has the importance of the more accurate pathological views which have been acquired of late years, been more forcibly illustrated than in reference to the present affection, owing to our improved means of diagnosis. The particular forms of leucorrhœa, &c., which occasionally accompany chronic metritis, were *formerly* empirically treated upon some general and common rules, without any regard whatever to the pathological state of the uterus on which they might be dependant." The empiricism here signalized, still, as formerly, exists, and although it undoubtedly contains the essence of a true pathology of the disease which we are now studying, Dr. Ferguson's article is not, we fear, sufficiently precise to indicate it unequivocally to the reader.

" Leucorrhœa," says Dr. Copland, in the great Dictionary which has immortalized his name, and will ever remain a monument of the most indefatigable industry and the most extensive erudition and research (Lon., 1842, part 8), " in every form, and in most of the circumstances in which it occurs, is merely symptomatic either of *functional*, inflammatory, or organic disease of the female organs, *or of disorder of the general health.*" " Leucorrhœa vaginalis is, in the acute form, simple vaginitis. Chronic vaginitis is a most common complaint : it has been very generally viewed as a consequence of *debility*, local or general, of local relaxation. *But a closer attention will often show that the local affection is often the result either of simple or of inflammatory irritation.* There is a more or less colorless, or whitish and bland discharge from the vagina. In some cases, however, it is of a deeper hue, being greenish, yellowish, or brownish, and occasionally, very acrid. On the subject of inflammatory irritation of the mucous glands of the os and cervix, he cites Clark. On the subject of uterine leucorrhœa, he cites the essay of M. Marc d'Espine (Arch. Gen. de Med., Feb., 1836), who examined with the speculum, 193 females.

Unfortunately all these were patients in a venereal hospital, so that many were cases of gonorrhœal and syphilitic origin, and not of simple and benign leucorrhœa. In twenty-three out of 193 cases, the uterine orifice was dry ; in 40 there was only a drop in it ; in 130 the discharge was abundant. In 111 cases, the discharge was in some, aqueous ; of whom, in seven, the orifice was healthy, in three reddish, in one deep red and granulated. In some, it was albuminous and transparent, of whom, in six, the orifice was reddish, in thirty healthy, in six, deep red and granulated. In some it was albuminous, semi-transparent, the discharge streaked blue, gray or yellow, of whom in thirteen the os was healthy, in nineteen reddish, in ten deep red and granulated. In some there was an opake streaked discharge, of whom in three the uterine orifice was healthy, in seven reddish, in six deep red and granulated. "*Acute uterine leucorrhœa is rather hysteritis* with copious discharge from the internal surface of the uterus, than simple uterine leucorrhœa."

This remark is creditable to Dr. Copland's judgment ; less so and savoring of prejudice, rather than a desire to acquire necessary information, is that which follows. He is speaking of chronic uterine leucorrhœa. "The French practitioners and a few British, who delight in the parade of this mode of research, inform us that the speculum shows the cervix uteri pale, slightly rose-colored, deep red or spotted ; yet I suspect that few reflecting physicians will consider themselves much enlightened by the discovery, or will be induced to prescribe according to the shade of color thus detected." This part of the article is mainly a repetition of Churchill. The following passage, we observe with regret. "Probably there are many cases in which inflammatory action truly exists, and others in which *debility*, as respects the state of both the internal surface and the parietes of the organ, performs its part." It is scarcely compensated for, even in some degree, by what follows. "Still I believe that too much is imputed exclusively to the one or the other, and that a third state, not necessarily connected with either, although sometimes associated with one or the other, is most frequently concerned in producing the discharge." "This is a state of vascular determination to the uterus and vagina, consequent upon the excitement or irritation of the nerves which supply them, in some cases carried to almost the pitch of inflammatory action, as in the acute states, whilst in others, as in the more chronic, it is attended by impaired tone of the extreme vessels in the internal surface of the organ, and probably also, in some instances, with deficient tone of the parietes of the organ itself." To this purely hypothetical view, the scepticism expressed by John Hunter, and previously quoted, aptly applies. How "vascular determination" should ever "not necessarily be connected with inflammatory action, and sometimes be connected with nervous irritation *and* impaired tone of the extreme vessels," &c., it might puzzle even him, were it true, to explain. The article on leucorrhœa is not the happiest effort of Dr. Copland's fertile and indefatigable pen.

In the Journal de Med. for May, 1843, will be found some remarks on the subject from Mons. Recamier, of Paris, who, in the treatment of female diseases, enjoys a very high celebrity in that metropolis. The 1st sect. of the article is upon the "Diffused phlegmasia of the mucous membrane of the vagina, os tincæ and uterus." "Acute state :—when these inflammations, whose causes cannot always at first be appreciated, are slight, their product is semi-diaphanous, but when they are of a certain intensity, the humoral flux which results from them is not translucid, as in the slight inflammations, or like that of gastralgic leucorrhœa, but becomes more or less opake or whitish, greenish, or yellowish. An inspection of the entrance of the vagina enables us to distinguish its special cause, and the speculum shows how far it extends towards *the uterine orifice, whence this product is seen to flow when the inflammation affects the mucous membrane of the uterine cavity.* The touch teaches us but little in these cases." "When the inflammation, with or without granulations, or excoriations, resists appropriate means," which he describes, M. R. then injects the cavity of the uterus and vagina, with solutions of the nitrate of silver ; "if the inflammation of the vaginal and *uterine* mucous membrane shows itself refractory even to this means, if the granulations are well marked, the membrane thickened, or the excavations assume an ulcerous aspect," he then applies the stick of caustic, even within the uterus. Speaking of a case, which we shall hereafter cite, he says, "I could mention many other facts of the same kind, in which the local inflammation was the point of departure of secondary symptoms, which ceased more or less instantaneously, or successively, or were at least advantageously modified, by the cauterization of the inflamed part." In the Encyclography of the Medical Sciences, Brussels, Dec., 1843, is a long and very elaborate article by Dr. J. H. Bennett (from the Jour. des Conn. Nov.), from which we shall make some practically useful extracts. It is entitled, "of ulcers and engorgements of the neck of the uterus." "The ulcerations of the neck have been differently appreciated by most describers. For some, the ulceration constitutes the whole disease ; to it they refer the many symptoms which the patients present, and to it alone they address their treatment. For others, the ulceration is nothing, or almost nothing ; it is but the symptom of an inflammation of the neck of the uterus, or of its mucous membrane." "Setting aside the degenerations of all kinds, I admit three species of ulcerations of the cervix : 1st—the ulcerations which take place in women who have had no children, have not acute vaginitis, or syphilis, primary, or secondary ; 2d—those which occur in women who have either ; 3d—those which may be referred to a preceding labor or miscarriage. Ulcerations of the first species may, strictly speaking, be accompanied by vaginitis ; but it is then local, of slight extent, and limited to the parts in contact with the diseased part, evidently an effect and not a cause of the ulceration. These are rare, and depend oftenest upon excessive coition." The following passages state what, if true, is important. "It may be said that many women who have been lately married, do not conceive in consequence of lesions of this sort. Messrs. Gendrin and Emery have told me that they had several times been consulted by young women who had been married for six, twelve, and twenty-four months, who had not become pregnant, notwithstanding their anxious desire to become mothers. A few only had experienced slight hypogastric pains ; most of them had perceived no abnormal sensation. When examined, they presented superficial ulcerations on the mucous membrane of the neck of the uterus, and slight engorgements of its tissue. The cure of these was followed, in most cases, by speedy conception. It is probable that many young women who do not conceive for one, two, or three years after marriage, owe their sterility to lesions of this kind, which are often cured without any treatment. It is, in fact, easy to conceive that the swelling which accompanies engorgement of the neck, and the presence of mucus between the lips of the os, may close the cavity of the uterus to such a degree as to render conception difficult or impossible." "When it is inflammation of the mucous membrane of the neck which is the cause of the ulceration, it generally commences in the many mucous cryptæ with which it abounds. These inflame, either primarily, or secondarily to the inflammation of the mucous membrane, as do those of the mouth; and by ulcerating give rise to small apthous ulcers, which, later, becoming confluent, form one ulceration of greater or less extent. The first period of the inflammation,—that in which the mucous membrane of the injected neck is covered with many punctæ of a more or less vivid red color, formed by inflamed mucous follicles,—might be called granulated inflammation of the neck, whilst the name of granulated ulceration might be reserved for that of these crypts, and their union into a single ulceration. In this form of ulceration, there is always more or less engorgement of the tissue of the neck." Most of the ulcers met with in civil and hospital practice, depend, according to the author, upon, in some cases, a long preceding accouchement; by which inflammation, acute or chronic, of the womb, or laceration, is effected. To the consideration of these, indeed, the article is chiefly devoted. Sometimes the metritis is local, confined to the neck, arising spontaneously in it, or consequent upon the extension of the inflammation of the mucous membrane of its cavity. The engorgement is primitive, and the ulceration consecutive.

"Much has been said in latter times, of internal metritis as a cause of ulceration of the neck. I have almost always seen true internal (muco) metritis accompanied, besides a muco-puriform discharge, with hypogastric pains of considerable severity, greater than that which usually accompanies engorgements and ulcerations of the neck. The reaction of this inflammation, too, upon the economy, is greater than in the simple cases of the latter. The womb is larger and tender. If the presence of a puriform mucus between the lips of the os, as it may depend on local disease of the neck alone, be not sufficient to determine positively the existence of an internal metritis, its absence is conclusive as a negative sign." Speaking of a case of ulceration cured by caustic, Dr. B. observes: "We see that as soon as the caustic had modified the ulceration and destroyed its irritability, the raptus towards the neck stopped, and the engorgement had soon diminished one half. I have seen again and again very considerable inflammatory engorgements of the neck disappear in a few weeks, by cauterizing the ulceration *which had* evidently produced them, especially in the service of Mons. Emery. I think that most of the engorgements of the neck which depend on parturition are secondary, and the consequences of the ulceration." "Engorgement consists rather in the hardness than the size of the neck." He then goes on to assert the general origin of all malpositions of the uterus, in engorgement of that organ, malposition being wrongly considered by many physicians as almost always dependant on laxity of the ligaments which support it; seldom persisting after the cure of the ulceration and its consequence, engorgement, though the latter may remain after the former is cured. "Almost always marked ulcerations of the neck are accompanied with more or less intense vaginitis, and almost all women thus affected, say that they "see much in white" (have whites badly). On introducing the speculum, it (the vagina) is sometimes seen of a bright red, with smarting, extending to the whole mucous membrane, and even to that of the vulva; sometimes the rosy tint begins only at the inner half of the tube, becoming deeper as it approaches the neck. *The ulcerated surface* (of the neck) *also secretes a purulent mucus, or pus* (?), *which unites with the more or less transparent fluid which escapes between the lips of the os*, and forms thus a thick layer which often conceals the neck, and must be wiped away to examine its condition. The presence of this vaginitis, *or leucorrhœa*, more or less marked, is so general, that it must be admitted to depend upon the morbid state of the neck." "Dyspeptic symptoms so often accompany ulceration of the neck, with copious *whites*, that we must be upon our guard when young women, placed in the above mentioned conditions, complain of them."

A Mons. Gosselin, in the Arch. Gen. de Med., January, 1843, has recently denied that any peculiar symptomatic value is to be attached to ulcers of the cervix in the great majority of cases. He regards them as forming only an accessory part of the disease, which really consists in inflammation of the uterine tissue, *especially of its lining membrane*, against which, and not against the mere ulcerations, remedial efforts should be directed. He details several cases to prove that ulcerations of the cervix give rise to no special symptoms, *but merely indicate the existence of a fully formed chronic metritis.* It is evident, he says, that the ulcers may be cured by caustic, and yet the *uterine catarrh* and general symptoms persist unchanged, since the application of caustic to the cervix uteri can have no influence on its diseased lining membrane." There is a great deal of truth in these passages, and we shall hereafter atttempt to dispose of the question.

In the American Journal of the Medical Sciences, Jan., 1844, Dr. Buel of this city has published an interesting "Report of the diseases of females treated at the New York Dispensary, &c." Under the head of Leucorrhœa, "A variety of vaginal discharges," says Dr. B., "have been confounded under this common term, often symptomatic of other and more grave forms of disease about the cervix uteri. Under this head I intend to embrace only those cases which consisted simply in an increased flow of *the ordinary mucous* secretion, unconnected with engorgements or ulcerations of the cervix and os." The objections to this simplification are many and obvious. Dr. B. says very justly, that "engorgement, hypertrophy, &c., are forms of disease extensively prevalent, and have until of late years been overlooked or misunderstood. It is a very frequent cause of a train of chronic affections which a great number of females in early and middle life suffer under, including more or less leucorrhœal discharge. Remedies are directed to relieve the debility and check the discharge, without an attempt to strike at the root by a removal of the cause. A discharge, white or colored, scanty or profuse, usually accompanies the engorgement, if of any extent, varying with the form of the engorgement from the cream white to different shades of yellow, brown and red." Dr. B. accurately describes simple engorgement ("accompanied with a discharge sometimes white, sometimes yellow, the cervix having an angry inflamed look, frequently deep crimson or violet. The cervix and adjoining part of the vagina are usually bathed in an abundant whitish or yellowish discharge, tinged in some cases with blood"), granular engorgement, and ulceration and granular erosion. The latter is excellently described in a quotation from Gibert. The article is highly practical and instructive, and some of the cases we shall hereafter avail ourselves of.

Dr. Ashwell's "Practical Treatise on the Diseases peculiar to women," just republished in Philadelphia, from the last English edition (1845), is a comprehensive and certainly most valuable volume; nevertheless the chapter on leucorrhœa has rather disappointed our expectations. Of the disease, Dr. A. makes three forms, the acute, the sub-acute, and the inveterate. "The simplest form of leucorrhœa is the result of mere hyper-æmia and vascular congestion. In its more serious forms, *inflammation* has succeeded, and *pus*, the proper and usual product of an inflamed mucous surface, is poured out." (124) The first portion of this passage has our unqualified approbation: of the correctness of the concluding one, we entertain much doubt. "In several instances where I have used the speculum, the cervix has been pale: in more acute cases, *slightly red*, and in two severe attacks, of a *deep crimson red*." This corresponds with our own experience; not so the statement which succeeds. "In none, where there was not suspicion of a venereal taint, have I seen erosions or ulcerations." It is but just to say that in the section on simple ulceration of the neck, this remark is not repeated. On page 127 we find again repeated what we consider to be a very rare occurrence, if it occur at all. "When the leucorrhœa is chronic and aggravated, the secretion is decidedly *purulent*, green, or brown, the result of inflammation." Admitting freely, as Dr. Ashwell does, the inflammatory nature of some forms of leucorrhœa, he nevertheless tells us, on page 128, that "there is a form of the malady which, though in many instances the consequence of acute and inflammatory attacks, *is still oftener* that of constitutional and local weakness." Here again is the old theory of debility reiterated, and the same disease made to depend upon two directly opposite causes. But it is probably a vaginal discharge in all cases, since we are told that "it is white, and scarcely stiffens the linen." On page 130, Dr. Ashwell admits the existence of a sympathetic leucorrhœa. Dr. A. most strangely lays aside the distinction, of so much practical value, of leucorrhœa into uterine and vaginal (quoting, however, elsewhere Clarke's account of the inflammation of the cervix), because "it is very difficult to distinguish what part of two continuous membranes of identical structure are furnishing a *nearly identical secretion*." (p. 130.) If we are not in error, this last assertion is inaccurate, and not less so, that which follows; "it is known that the vagina is much more frequently the seat of the disease, than the cavity of the uterus." We find Dr. Ashwell relying upon the severity of the symptoms alone for the diagnosis, while "the frequent implication of both vagina and uterus," and the "difficulty, even when one only is morbidly affected, of distinguishing which it is," are not recommended and attempted to be ascertained, or overcome, by the use of what he admits, in the section on diagnosis, in which it receives a bare mention, to be the "only certain mode of diagnosis," the speculum. It must be acknowledged, however, that in other places in the book, this instrument receives its just amount of recommendation. Upon page 31, we find Dr. Ashwell qualifying his opinion of the production of Leucorrhœa by debility as follows: "because the system generally is delicate, it does not necessarily follow that the uterus and vagina must be in a state of anemia;" and he informs us that "local and long continued inflammation often produces constitutional weakness, and that, certainly, the phenomena of the disease "point to inflammation as one of its essential primary conditions." "When," says Dr. A. "*erosions*, or chancrous sores can be perceived on the os and cervix, the syphilitic character of the disease is established." If this were generally admitted, the treatment now in use against the erosions seen in so many cases of non-specific leucorrhœa, would require considerable modification, and the consequence of such announcement among the better classes, we leave to the imagination of the reader.

With the following passage, corroborating an opinion of our own to be hereafter expressed, we are disposed to agree. "Leucorrhœa is sometimes *purulent* (?) and so far infectious as to produce in the male a discharge that cannot easily be distinguished from gonorrhœa" (134), and this "in women of indisputable purity:" and Dr. A. further says, "on one or two occasions, after abortion, I am almost confident that eruptions and decided ulcerations have been among the results of intercourse." Under the head of "treatment," the speculum is recommended in long standing and severe cases, and scarification is a favorite remedy of the author; a case is mentioned in which the "cervix was congested, red and extremely tender." Chronic metritis is said to be attended with a transparent mucous, or more viscid and opake discharge, or a muco-purulent fluid and blood (162), but discharges are not mentioned in connection with simple ulceration of the cervix and os. In none of the three cases recorded by Dr. A. was the speculum employed. We cannot consider the work as presenting an entirely satisfactory view of the subject in question: although as a whole, it is quite equal to any of its English predecessors. Dr. A.'s infrequent use of the speculum, lessens, we speak deferentially, the value of his pathological opinions; and sufficient prominence is not given to the conditions of the organ which it reveals. Some of the "transparent mucus," and possibly of this gelatinous white mucus, probably came from within the os. It is very rare to see the former "gelatinous," which uterine mucus always is.

The latest work which has appeared on the diseases of the sex, is the "Treatise on the Diseases and special Hygiene of females, by Dr. de L'Isére," translated by Professor Meigs of Philadelphia (1845). In this volume, which contains a good account of the now generally received pathology of the diseases of which it treats, it is, however, incorrectly, as we deem, asserted, that the leucorrhœal discharge, "far from being always the result of inflammation of the uterine mucous membrane, *is more frequently* determined *by relaxation*, *and atony* of the utero-vaginal mucous membrane." (307.) And on the next page he says that he does not regard "inflammation as the sole cause of leucorrhœa;" (308) and that he comprehends under that name only the essential and sero-*mucous* super-secretion which results *either* from *simple sub-acute, or chronic inflammation of the utero-vaginal lining membrane*, or from *a state of general or local atony*. He justly says that the "sub-acute and chronic forms are the true types of the disease." "The discharge, which is at first small in quantity, clear, or serous, soon augments, becomes thicker and white, lactescent, yellow or greenish; the spots on the linen are yellow, or greenish, and give it a starched stiffness;" (311) of the chronic passive leucorrhœa, he says, the discharge is commonly mucous, and hardly stains the linen; it has scarcely any odor, and the color is whitish; like that of thick whey. If abundant, the mucous discharge is generally lactescent, the discharge, when dried, stiffens the linen and leaves a greenish spot, deepest at its edges. Sometimes it is more consistent, flocculent and caseiform." (312.) We submit that this is exactly the description of a leucorrhœa purely follicular and vaginal (the author taking no notice of the distinction), and that the train of symptoms he has given, ending in death by hectic fever, cannot by any possibility depend solely on this cause without the complication of some other grave malady (313). Dr. C. de L'. admits that a leucorrhœa may become so irritating as to communicate it (p. 315). He quotes Donné as saying that vaginal mucus is thick, creamy, and never ropy; uterine mucus, slimy, ropy and tenacious, and with difficulty detached from the os uteri. The p. m. appearances he enumerates as follows: swelling and softening of the vaginal and uterine mucous membrane: dilatation, redness, softness, and hypertrophy of the os; slightly bluish tint of the mucous membrane covering the vagina and vulva, from whence oozes from all parts, on compression, a fluid analogous to that secreted during life; vesicles, softness, looseness, and infiltration, of the lining membrane of the uterine surface; dilatation of vessels, ulcerations, erosions, cartilaginous aspect and gangrenous spots (317). This account is quoted from Blattin, Morgagni, and Lagneau (vide our citations ante) and is not, evidently, the result of the author's own observation.

Lastly, on page 320, the author commends the touch, by way of assuring ourselves whether *the passive chronic Leucorrhœa* is really idiopathic or symptomatic. Whatever may be the general merits of Dr. C.'s ponderous tome (and it is erudite and instructive), this chapter is not superior to others which have preceded it. That on " Redness and simple ulcerations of the os " is not original: that on chronic metritis is made up from Lisfranc and Duparcque.

By a most singular classification we find acute inflammation of the os and neck treated of in the section on acute vaginitis. On page 275 it is said to be proved, that when this is once established, under the influence of any cause whatever, it may, during the venereal act, communicate an urethral blenorrhagia to the male, and not only this, but even ulcerations, vegetations, &c. Still more singularly and objectionably, uterine catarrh is confounded with acute parenchymatous inflammation (even the puerperal) (277) and the following extraordinary statement is hazarded. "But these two kinds of inflammation rarely exist separately, and as their causes, symptoms, and treatment offer but slight and unimportant differences, we shall describe them under the common name of metritis (acute)." Afterwards, however, (p. 283) a diagnosis of acute metritis from uterine catarrh is made, and a chapter occurs further on upon puerperal fever. We content ourselves with merely indicating this unusual and perplexing arrangement: not impugning, however, the general merits of this elaborate compilation.

When we look back to the opinions which have now been quoted, we find that Sydenham, Manning, Cullen, and Leake, all support the view of the purely asthenic nature of leucorrhœa, while Hamilton, Clarke, Pinel, Bricheteau, Denman, Capuron, Locock, Boivin and Dugès, and even Burns, Taylor, Ferguson, Copland, Ashwell and Colombat, have given modified opinions, all admitting its occasional dependence on debility, nervous irritation, &c, &c., and yet acknowledging in terms sufficiently explicit, its dependence also upon vascular determination to, or actual inflammation of, the organs concerned in its production. It is but justice to remark, that Boivin and Dugès barely admit the possibility of its dependence on the former causes, while Locock, Ashwell and Copland, distinctly assert the general inaccuracy of the received opinions on the subject. But of those who have done so most emphatically, and asserted most boldly and at an early period in the progress of science, its dependence on a state of the parts purely inflammatory, we mention with pleasure the name of our eminent countryman, Dr. Dewees, with which must be associated the honored names of Morgagni, Lagneau, Duparcque, Churchill, Lisfranc, Recamier, and that of Mr. Bennett. What opinions our own experience has led us to adopt on the subject, fully confirmatory as they are of those of the authors now cited, we shall deduce from the consideration of the cases from which they have been derived.

(*To be continued.*)

Art. III.—*Case of Intussusception.* By George M. Maclean, M.D., of New York.

I. H. N., aged 7 months, a healthy looking boy, but subject to colds, had been slightly indisposed for a few days, and had been purged, but not excessively, with syrup of rhubarb. On the morning of February 2d, 1845, he was taken with sickness of stomach, which continued through the day. At 6 P. M., when I first saw him, he was disposed to vomit at intervals: the thighs were rather firmly flexed on the abdomen, and the gums were moderately full. There was no fever, nor other appearance of disease.

At 9 the same evening, he discharged a small quantity of blood and mucus from his bowels, with increase of vomiting. On the approach of a paroxysm he would raise himself up, and lean his chest forward; when it subsided he would fall backwards, apparently asleep. He retained a remarkable brightness of countenance throughout his illness, and seemed by his looks to implore relief. He would swallow whatever was given to him, grasping the spoon and holding it to his mouth till it was taken from him.

On the 3d, at noon, the symptoms had not abated. A firm tumor, of about two inches in width, was felt extending across the abdomen just below the umbilicus.

On the 4th, the tumor was somewhat softer: the paroxysms were more frequent, but less violent. In the afternoon, he appeared more exhausted in the intervals. From this time he became gradually weaker, and expired without much apparent suffering, at 8 o'clock the next morning, having, since the attack, had no discharge from the bowels, except some small ones of the above mentioned character.

In the dissection, 12 hours after death, I was assisted by Dr. A. C. Post. A portion of the omentum and of intestines were found invaginated within the lower part of the colon. Part of the mesocolon was drawn down so as to present the appearance of a band confining the termination of the duodenum in the jejunum. On removing and laying open the diseased part, the embraced intestines (more especially the colon) were found to be highly inflamed throughout the caput coli, presenting a dark red aspect. The mucous coat of the containing part of the colon was also inflamed. Its peritoneal coat, as well as the remainder of the peritoneum, was free from inflammation. Around the valve of the colon there was a considerable thickening, with a hardness almost cartilaginous. The introsuscepted part measured, when extended without stretching, 18 inches, of which 12 were of the colon, and 6 of the ileum.

This occurrence being rare, the following observations may not be uninteresting.

Symptoms.—A subject, examined by Heister, had died of spasmodic constrictions.*

Morgagni † met with but one case, and that was so slightly constricted that upon gently turning over the intestines to ascertain what part was involved, all traces of it vanished. The only symptom mentioned was continual vomiting, for 21 days, the cause of which, as well as of the death, was doubtless, as he thought, an injury of the head. He quotes the following cases: 1. Two from Burgrarius; in one, "in a pretty confined state," there was no sign of iliac passion; in the other (which was of twice the extent of the former), there was some tormina and vomiting of remedies. In neither had inflammation come on. 2. A case from Hartman, of considerable extent, but without entire obstruction of the passage, in which there was no symptom of volvulus; the functions of the intestines being very well performed. 3. One from Widman, in which more than a geometrical foot of the jejunum was inverted, but still pervious. The symptoms were very severe pain, almost continual vomiting, yet not of matter like fæces, nor attended by suppression of stools. 4. One from Valentinus, with the same symptoms. 5. A case from Hoffman, attended by vomiting of excrement. 6. One from Weissius, producing violent pains, obstinate obstruction of the bowels, and finally volvulus.

Dr. Thomas, of Penn., has related a case‡ of a child 3 years old, who, after exposure to cold, was seized with pain in the bowels, and afterwards, during sleep, with opisthotonos, attended by a copious evacuation from the bowels. The subsequent symptoms were laborious slumber, with hot and dry skin, full and frequent pulse, dry furred tongue, open eyelids, and pupils much and permanently dilated. After antiphlogistic treatment, the pulse was slower and less tense, the skin dry and husky, the respiration hurried and laborious, the pupils contracting and dilating frequently, without variation of light. It terminated fatally in 40 hours from the time of attack.

The symptoms in the case reported by Dr. Harlan,§ were restlessness, white and furred tongue, little or no fever, irritability of stomach, constipation, and a protrusion through the anus, resembling a prolapsus of the rectum, whenever the patient strained.

Dr. Lee could obtain little satisfactory information respecting his case ‖ prior to his first visit. The child was 4 months old, was represented not to have been well for 2 or 3 weeks, to have had frequent fits of screaming, been very restless, started in sleep, and vomited some. The symptoms observed by himself were convulsions every few minutes, no fever, pulse imperceptible, respiration quick, and at times laborious, countenance pallid and sunken, with a peculiar transparency of the eyelids, the abdomen but little tumefied, and not painful on pressure, small discharges of whitish viscid slime streaked with blood, dilatation of the right pupil and contraction of the left, and coma.

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* Med. Chir. and Anat. cases.

† De Sedibus et Causis, Alexander's translation, Letter 37, Article 33.

‡ Med. Record, Vol 16.

§ Med. Chir. Rev. for July, 1839.

‖ N. Y. Med. and Phys. Jour., Vol. 16. (case by C. A. Lee.)

In Blacklock's case,[*] there was obstinate constipation, but without symptoms of inflammation until towards the close.

Vulpes' patient,[†] who discharged three feet of small intestines, was afflicted with volvulus.

In Mr. Gorham's case[‡] there were discharges of blood, crying with expression of pain in the countenance, dilated pupils, pulse 200, vomiting, hot and soft abdomen.

Situation.—In Heister's case there were two intussusceptions, one not far from the stomach, and the other near the large intestines. Haller found them in various situations: in one, the lower part of the colon was received into the rectum. In the time of Morgagni very few had seen it in the colon. Ruysch had only once seen it in that part, but often in the small intestines. Of eleven other cases referred to by Morgagni, five were seated in the jejunum, four (two were double, and one was triple) in the ileum, one in the colon, and in one the ileum was received into the colon. In Dr. Harlan's case, about an inch of the ileum, the cœcum, and a part of the colon, were involved. In Dr. Lee's case, there were six or seven involutions in the jejunum and ileum. In Dr. Thomas' case, the seat was the upper part of the ileum, and perhaps a part of the jejunum: in Blacklock's the ileum: in Vulpes' the jejunum. In Mr. Gorham's, the lower portion of the ileum was received into the ascending part of the colon, and it into the transverse.

Causes.—Haller,[§] having observed it in a living rabbit, repeatedly afterwards produced it in frogs. "In these animals," says he, "if you touch any part of the intestines with anything corrosive, it is immediately constricted, and soon after, the part next adjoining it gradually ascends, and folds itself over the other, so as in a manner to sheathe it."

In Heister's case, the intestines between the two involutions were filled with worms. In Thomas', there was a large collection of lumbricoid worms. Dr. Lee thinks his case was caused by nephritis. In Morgagni's own case, a worm was present, as in several of those he quotes, e. g.: Pyerus saw worms rolled together in an ileum, in which were three intussusceptions: and Ruysch, in two instances, found worms within the constricted part. Hence he concludes, that any concurrence of circumstances, which will produce a dilatation of one, and a descent or contraction of the other, of two contiguous portions of intestines, will cause an intussusception. Among the former kind he places flatus, and among the latter weight, and worms. Dr. Lee seems to entertain the same opinion, supposing also an inversion of peristaltic action from the rectum upwards. If this opinion be correct, a practice which has been highly commended of late years, in such cases, cannot but be injurious, viz. inflation of the bowels. And in those cases, the record of which I have had an opportunity of perusing, in which it was thought efficacious, there was, to say the least, an uncertainty as to the presence of intussusception; one case, however, must be excepted, viz. that of Mr. Fox,[‖] in which "a portion of one of the intestines, with some of the mesentery still adhering," were discharged, and yet the boy recovered: the inflation, however, probably did not aid in the cure. But it should be observed that, in my case, there was no unusual quantity of air present; probably, the cause was the thickening of the ileo-cœcal valve—and in Heister's there was scarcely any in the intestines, so that they were pressed partly into the pelvis, and partly to the sides of the abdomen, the linea alba and recti muscles, lying upon the aorta and lumbar vertebræ. Morgagni adds, "However, no cause is supposed to be more common than convulsive motions" of the intestines. May not most of the slight cases which are generally regarded as harmless, be produced during the struggles of death?

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[*] Amer. Jour. Med. Science, Vol. 113, from Glasgow Med. Jour., 1831.

[†] M. C. Rev for Jan., 1839, from L'Observ. Med. di Napoli.

[‡] Ibid, from Guy's Hosp. Rep., No. VII.

[§] Pathol. Observ.

[‖] Med. Chir. Rev. for July, 1839.

Prognosis.—The opinion is generally entertained that uninflamed intussusception, is not a dangerous affection. But the cases of Burgrarius favor a contrary conclusion. The opinion of Morgagni seems correct. He acknowledges "that it is not at all necessary any very violent disorder should arise, where there is a lax susception, that does not straighten the passage greatly." But he says a susception "is not only conceivable, while the connection with the mesentery is preserved, but is also very injurious, on account of this very connection. For when one part of the intestine enters within the part next to it, the portion of the mesentery, that is annexed thereto, must enter in at the same time. Wherefore, if it stay there for any considerable time, and any constringing cause come on, the motion of the blood through the vessels being retarded, it will swell to such a degree, as to hinder the intestine that has entered in from receding, and likewise prevent the passage of the matter that was about to descend." "If the susception is not lax, and shuts up the passage for a long time together, or at least nearly shuts it up, a volvulus, or pains, inflammations, and other symptoms of this kind, are the consequences."

Bearing in mind the cases of Vulpes and Fox, it must be admitted that recoveries do sometimes occur; yet when the symptoms have so far progressed as to render the existence of intussusception probable, there can be very little grounds for hope of recovery. Mr. Gorham considers it necessarily fatal, when occurring at the ileo-cœcal valve, because the ileum is received into the colon without any preternatural contraction, whereas, when it results from spasm, the inner fold acts, on the relaxation of the spasm, in a contrary direction, and thus tends to disengage itself. He remarks, "In all the fatal cases reported, the same intestine, viz. colon, had formed the containing fold, and this had grasped the contained part (viz. the lower portion of the ileum, the vermiform process, the cœcum, and more or less of the inverted colon)." Surely here was contraction. Lee, Thomas and Blacklock's cases show that it can be fatal when occurring elsewhere.

Art. IV.—*Notice of some Experiments for the Cure of Deafness.* By Dr. P. Meniere, M.D., Principal Physician to the Royal Institution for Deaf Mutes, at Paris. [Translated from the French. An article in the "Annales de l'Education des Sourds-Muets et des Aveugles." Paris: 1844.]

It is unnecessary in this place to refer to the numerous attempts made since the commencement of the present century for the cure of deafness (surdi-mutité). That the solution of such a problem appears very difficult, even impossible, is not sufficient, thanks to God, to cause the human mind to give up new researches, and not to endeavor earnestly to attain at last so desirable a result.

In whatever point of view deafness is considered, it should be acknowledged that this morbid state, whether congenital or acquired, demands for its proper treatment, a thorough knowledge of the special conditions that constitute it. As a consequence of this principle, it will be admitted that before treating a deaf mute it is necessary to subject the organs of hearing to a strict examination, in order to appreciate correctly the changes in them.

I would not, however, prohibit every empirical attempt; there are sufficient facts to prove that happy results may be expected from these hazardous experiments. Are we sufficiently advanced at the present day to say with certainty what are the physical conditions of the deafness of such or such an individual? Men specially devoted to this subject, and whose position has brought under their observation a great number of deaf mutes, dare not reply in the affirmative to this question. The profound study of the ear, during life, and after death, proves that, with many deaf mutes, this organ does not differ perceptibly from that of one who hears. In other cases some exhibit an arrest of development, some mal-conformation, some organic imperfections, which are believed to be directly connected with the absence of hearing; while others still present external injuries, the result of incidental diseases, which have destroyed the most of the middle ear, or tympanum (" caisse du tympan").

It will be perceived at a glance, that deafness, arising from such different causes, cannot be cured by *one* mode of practice; and it is astonishing that the public, and physicians themselves, receive without doubt, the announcements of the recovery of deaf mutes, which are often met with in scientific and other works. The least critical knowledge would suffice to put the reader on his guard, in relation to such miracles; but few persons have the courage to investigate the subject, and demand proofs, so that the most partial assertions are received as demonstrated truths.

Within a few years new experiments have been made, and it may be useful to state in what they consisted, and what have been their results. Being an impartial witness of these experiments, and knowing perfectly the deaf mutes who have been the subjects of them, I am prepared to furnish upon this point exact information, the value of which I hope will be appreciated.

Dr. Turnbull announced himself the inventor of a medical preparation, by the use of which he pretended perfectly to cure deafness. The English Journals published numerous examples of cures, and soon the inventor of this remedy visited Paris to continue his experiments, and prove his success. Invited by distinguished persons to give to this physician all necessary facilities, I placed at his disposal four pupils of the Royal Institute for deaf mutes, reserving to myself the right of superintending the experiments, and studying the results.

I should first say, that Dr. Turnbull examined the external passage of the ear of my deaf mutes, only with the design of ascertaining the presence of ceruminous masses, which would prevent liquid medicine penetrating to the bottom of the ear. In one of them there was complete destruction of the tympanum, and the small bones of the covering; two others had these organs in good condition, while the fourth had the tympanum strongly depressed within, and adhering to the internal coat of the cavity of the tympanum. The two pupils having the ear sound, at least in appearance, were hardly sensible of the most piercing sounds. The two others, hearing a little, could speak a few words taught them in childhood, and belonged to that class of deaf mutes, the most numerous, in which the hearing is destroyed by accidental causes, but not totally, or sufficiently so to render all oral communication impossible.

The English physician did not make any distinction between these pupils; he did not ascertain by any previous examination, the degree of hearing of each one, and administered his remedy to all in the same manner. He made use of a liquid substance slightly aromatic, almost tasteless, introduced lukewarm into the external opening, leaving it in contact with the bottom of the passage for two or more minutes—keeping it in motion by an instrument of soft leather, so as to facilitate the absorption. The conduit remained closed for some moments with a piece of cotton, and soon the deaf mute was subjected to experiments to demonstrate that he had become capable of hearing.

The experiments made for this purpose consisted, first, of a violent noise, produced by striking two bound volumes, one against the other, held at the distance of some "centimetres," only, from the ear, in such a way that the air put in motion by the concussion of the volumes, struck all this side of the head, and caused at the same time a sudden noise, and a very powerful impulsion,—a double sensation, which confounded itself and prevented the result from being appreciated. Dr. Turnbull thought that this startling shock must awaken the sense of hearing, and dispose it to perceive lighter impressions; and, indeed, immediately after this explosion, he placed a watch at the distance of twenty or thirty "centimetres," more or less, and according to him, its ticking was heard without difficulty.

It would be very easy to show that these experiments are inconclusive, that they involve sources of error, and are far from proving what the English physician wished to demonstrate. While the deaf mute indicated by a sign that he heard the noise of the watch, and the numerous assistants testified their admiration of the result of an experiment so singularly made, the same child remained completely unconscious of the most violent shouts,—and this supposed perception of the ticking of the watch took place in the midst of a stunning noise, which prevented any of us from hearing much louder sounds.

These experiments were repeated three times, with similar results, and the Journals had already announced these *wonders*, when, for sufficient reasons, this useless labor was discontinued. It was proved that the four pupils were then precisely in the same condition, with respect to hearing, as before the treatment of the English physician. We have since learned that the active property of the medicine introduced into the ears, was owing to a preparation of "Aconitum Napellus," a substance which, every one knows, exerts a remarkable influence upon the brain, upon the nerves of the senses, and more particularly upon the auditory nerves. I should add, that this mode of treatment of deafness applied by its author to all the various imperfections of the organ of hearing, has been severely condemned in England, and for some years it has ceased to be noticed.

In this instance he made use of an empirical process, employing a stimulating substance, applied directly upon the external part of the auditory passage, and designed for immediate absorption. Without troubling himself as to the causes of the deafness, and the changes of the auditory organ, without seeking to render himself acquainted with the probable condition of the acoustic nerves, of their atrophy, of their absence even, or of a defect of conformation absolutely irremediable, this same substance was indiscriminately applied hap-hazard, and the skilful hand which administered it, obtained infallibly the same result in four cases, which were found to be, in some respects, essentially different. Who does not perceive, at first sight, that these processes have in them nothing of a scientific character, and that they are fitted to strike the multitude and produce illusions always easily effected ?

I have now to speak of another experiment made like the preceding at the Royal Institute for deaf mutes. M. Dupotet having applied animal magnetism to the cure of a great number of diseases, thought that this agent might produce, among deaf-mutes, the sensation of hearing, since it procured some perceptions of a different nature, in the absence of the sentient organ, and of the agent capable of acting upon it. I am not in this place to give my views upon the value of this principle. Whatever it may be, M. Dupotet took under his care Miss B., formerly a pupil of this Institute, and soon he believed he was able to announce to the Academy of Sciences of the Institute that he had by magnetism alone restored to hearing a deaf-mute ; that this deaf-mute heard and spoke,—and that by the aid of magnetism this great problem of the curing of deafness was thus solved. A committee was appointed to examine the facts, to attend some new experiments, and I was directed to superintend the employment of this new means (" moyen") upon three pupils of the Royal Institute.

Here again, there was not, on the part of M. Dupotet, any previous examination of the ear ; he made no experiments with the design of assuring himself whether these children heard a little, and even to what extent ; in a word, he commenced, at once, the particular " passes" designed to produce magnetic sleep. I had taken care to assure myself that two of these pupils heard all loud, sudden, explosive sounds, that they could even imitate them, and that the third, much more deaf, remained almost entirely insensible to these causes of auditory impressions.

Thirteen sittings from one to two hours each were devoted to these experiments. The three pupils were very slightly affected by the magnetic influence of M. Dupotet ; neither of them slept, neither of them appeared to reach that state of somnambulism called " lucid ;" in fine, the action of this fluid, so powerful it is said, did not manifest itself by any perceptible sign. I kept a very minute account of all that was done by the magnetizer and the magnetized. I scrupulously fulfilled my task, not forgetting any of the circumstances which presented themselves to my sight, and I must say that the result was *nothing*. These pupils heard even slight sounds, when they were produced suddenly by a blow near the ear ; but another deaf-mute in the same primitive condition subjected by myself to the same experiments of hearing without having been magnetized, perceived equally well the same sounds, produced in the same manner, and I have long been satisfied that this experiment would succeed upon most of our pupils.

It always happens, in cases of this kind, that a little use improves the hearing; that the frequent repetition of these experiments renders those who submit to them more impressible; and it has been known a long time, that almost all deaf-mutes become susceptible of sounds, which did not strike them at first. The ingenious experiments of Mr. Itard have demonstrated all that can be gathered upon the education of the ear, and I can verify all the observations of this learned physician, from attending the experiments of M. Dupotet. But I have also seen that this improvement of the hearing does not exceed certain limits, that the progress was very limited, and that the unfortunate deaf-mute soon arrived at a point beyond which he could not improve. All conscientious observers have confirmed these results already acquired to science; and modern experimenters, who appear ignorant of these facts, ought to study them forthwith, to change their starting point, and not to cry a miracle when by any means they believe they have developed the auditory sensation, which exercise alone infallibly produces among the greater part of deaf-mutes. Moreover, the successful efforts of M. Dupotet have been attended by the committee of the Institute; the report of M. Magendie subjected these facts to a rigid examination, and the conclusions of the reporter expose the insignificance of the pretensions of the magnetizer.

I might here give all the reasons for this work of the committee of Academy of Science; it will suffice, however, to refer to this document, which is of a highly scientific character. I will only say that the art of experimenting is not so easy as one thinks, and within the ability of every one. It is necessary to surround oneself with infinite precautions against the numerous causes of error which arise on every side, especially when one attempts to examine the living phenomena of our organization. Whoever is ignorant of the anatomy of the ear, the physiology of the acoustic nerves, the laws of the propagation of sounds, the differences of voice, tone, &c., cannot pretend to throw any light upon these difficult questions. An attentive physician who ascertains with surprise the numerous varieties that are met with among the principal kinds of deafness; who remarks the facility with which certain sounds are perceived, while others much more intent are not; who observes the singular circumstances having a marked influence upon hearing,—such a physician, I say, will remain convinced that these attempts, empirical or otherwise, should be without useful results, because they do not possess any solid foundation, because they are without value, as without ability. To appreciate what is to be done in this work, one must know what has been done; he should study these questions, so complex, so delicate; he should live with deaf-mutes, to know their particular defects, and what is suitable to be done for them. Far be it from me to think of throwing discouragement into the minds of those who feel impelled to the accomplishment of this object. Never was there a more useful subject of research proposed to the human mind, but it is important that these experiments should have an undoubted scientific character, and that those who undertake them should be influenced only by honorable sentiments.

ART. V.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

[IT gives us great pleasure to invite the attention of our readers to the following extracts from the proceedings of the *New York Medical and Surgical Society*, and we take this occasion to return our cordial thanks to the gentlemen connected with this flourishing association, for their liberality in allowing us the privilege of access to their "Minutes," and of publishing such portions as we shall deem of sufficient importance to find place on the pages of the Journal.

The Society, which has now been in existence more than ten years, is composed of active, working men, who are doing much to sustain and advance the interests of Medical Science in this city. Former numbers of this Journal will bear testimony to their zeal and energy; and many articles from their proceedings have been republished in foreign periodicals, and have had a wide circulation in different publications at home. A faithful record of their future doings will hereafter constitute an important feature in the character of our Journal.]

Case of Strangulated Congenital Inguinal Hernia. By S. P. White, M. D.—In the month of October last, I was requested to meet Dr. G. F. Huntington in consultation upon a case of Strangulated Inguinal Hernia. The subject of the case was Mr. K., aged about 35 years. The morning of the day upon which I saw him, he had gone down to Wall street as usual for the purpose of attending to his regular business. While sitting upon his chair, he felt some uneasiness in the left groin; and the pain, with a tumor, increasing rapidly, he hastened home to his dwelling. Dr. H. finding the hernial tumor very large, with no disposition to return, after using warm fomentations, with the hips elevated, together with taxis, requested a consultation. I saw the patient about noon, and found the hernial tumor very large and tender to the touch. Upon examining the tumor I could find no testis on the left side, as it was completely enveloped by the protruded parts and serum. Upon questioning him very closely I ascertained that he had been troubled with a rupture from infancy, that he had kept the fact to himself, and that he had never worn a truss. It was plain therefore that it was a case of Congenital Inguinal Hernia.

I first bled him to syncope, and then advised the tobacco injection. The medical treatment appeared to relax the parts some, but not sufficiently to enable us to return the protrusion, and during the operation afterwards, we ascertained that it was owing to the stricture being situated in the thickened hernial sac. The patient being very restless, and medical means not answering the purpose, we concluded to proceed to the operation soon after candle-light, before serious effects should be produced by the strangulation.

The instruments and dressings were accordingly prepared, and the patient prepared for the operation. With the valuable assistance of my friend Dr. Huntington, I commenced by making an incision about three inches long, and which embraced about two-thirds of the tumor. After dividing through the superficial fascia, I was surprised at not finding the fibres of the cremaster muscle more distinct; on the contrary, they were scattered and indistinct. The hernial sac was carefully opened, and as soon as this was done, there escaped a large quantity of serum, which readily accounted for the large size of the tumor. A small knuckle of intestine was found firmly strangulated, and the left testis lying perfectly uncovered. Upon finding the intestine sound, I proceeded to search for the stricture. There was but a slight stricture at either the external or internal ring. What there was I divided, but still it was found impossible to return the intestine. After considerable difficulty, I succeeded in ascertaining that the principal stricture was seated in the mouth of the thickened hernial sac. The finger was passed under the stricture, the probe-pointed bistoury directed along the finger under the stricture, and then a division of the stricture was effected.

As soon as the stricture was divided, the patient remarked, "that was the worst of all." I replied that was the "best of all," and the intestine was soon returned. The wound was dressed with sutures, adhesive straps and bandages. Some tenderness of the abdomen was perceived a day or two after the operation, which was relieved by a blister plaster and laxative. The wound united handsomely, a truss was procured, and under the judicious care of Dr. Huntington he soon returned to his customary avocations.

[In introducing the following important case to the attention of our readers, we deem it but an act of justice to the operator, Dr. White, to preface it with a few remarks. The case has been alluded to, in one of our daily papers, in a manner calculated to injure the reputation and professional character of the operator; and, were it not for this circumstance, we should feel disposed to publish the report without any comments.

The result of the case was unfortunate—different from what was anticipated; and those who seize every opportunity to judge harshly, and criticise, with or without reason, may think that blame is imputable to the operator. Such, however, is not our view of the matter. We have known death to result from an attack of erysipelas, caused by removing a simple tumor from the scalp, and yet no one thought of blaming the surgeon. We have known others die on the operating table, from some untoward accident, not foreseen, and, therefore, not guarded against; and yet the reputation of the surgeon has gone unscathed. In the present instance, the professional reputation of Dr. White is a sufficient guarantee, not only that the operation was a justifiable one, but that it was performed in a scientific and skilful manner. The man who has tied the internal iliac artery may certainly be presumed to know enough of surgery, and surgical anatomy, to remove an encysted tumor, of the size of a hickory nut, from over the clavicle. It is stated, by the surgeons who saw the case in consultation, that the artery, whence the hæmorrhage proceeded, was an anomalous one; and, as it ran *through* the tumor, must necessarily have been cut in the operation. The patient died from erysipelas, not from hæmorrhage: but, even had the case terminated fatally from the effects of the latter, we should still be of the same opinion, that no blame could justly attach to the operator. As surgeons, no more than other men, can see very far into futurity, they have to be governed, like the rest of the world, by reasonable probabilities, based on former experience. Such experience could have led no one to apprehend any danger from such an operation. For consequences resulting from anomalous structure, which could not be anticipated, we see not how any man can be held responsible. Were all the results of *medical*, as well as *surgical* practice, known and published to the world, we fear that the mishaps and errors of the latter would be too insignificant for notice, when compared with those of the former. Let him who is without sin, cast the first stone.]

Case of Tumor of the Shoulder, by S. P. White, M. D.—Mrs. B. was a married lady, of thirty years of age, and for whom and her family, I had been in the practice of prescribing about seven or eight years, and with whom I had been on terms of friendly intimacy. While attending upon her child, in the latter part of December, she called my attention to a tumor, about the size of a large hickory nut, situated above the clavicle, on the right shoulder. She said that it had been there about six months, and that it was increasing in size. It was of a globular form, felt hard, something like a wen; though I concluded it was, what it turned out to be, an enlarged gland. I immediately recollected that I had operated upon a similar tumor, in Columbia county, with this difference, that the neighboring glands, in the latter case, had become contaminated. The disease consequently returned, some months after the operation, assumed a malignant character, and destroyed the patient. As soon as I had examined the tumor of Mrs. B., finding it situated quite superficially, directly under the platisma myoides, and apprehensive lest by its growth it would dip down among the important vessels of the neck, I advised its removal.

The ninth of January was accordingly appointed for the operation. On that day, accompanied by Dr. S. Brown, I made my call, prepared to remove the tumor. The husband inquired, whether there was any danger in the operation: I replied, that there was more or less danger in every surgical operation.

When she sat down to have the tumor removed, I noticed that her firmness had, in some measure, forsaken her; and that opinion was confirmed by her uneasiness and restlessness during the operation. She subsequently said that the night previous she had not felt well, having been troubled with a pain in her head.

The operation was commenced with the assistance of Dr. B., by making an incision two inches long, parallel with the fibres of the platisma myoides, directly over the centre of the tumor. The platisma was next divided, the circumference of the tumor then detached by dissection, and the base nearly separated from the lower towards the upper part of the tumor, when a sudden jet of blood took place. I hastened the separation of the tumor, and after removing it, I requested Dr. Brown to stop the hæmorrhage by pressure with a sponge. He immediately complied with my request; and, after a few minutes, the sponge was removed. The bleeding did not return; on the contrary, the wound was perfectly dry. Dr. B. was under the impression that the artery which adhered to the tumor so closely, and which furnished the hæmorrhage, was either the transversalis colli, or an anomalous branch of some large adjoining artery. Dr. J. K. Rodgers, who is an excellent anatomist, and who saw the case the same day, was inclined to consider the latter opinion most correct, viz. that it was an anomalous or irregular branch. Dr. A. C. Post, another good anatomist, thought it might be the supra-scapulary. The wound being free of blood, and there appearing to be no disposition to a return of bleeding, it was dressed with two sutures, adhesive straps, lint and bandages. The patient walked up to her chamber, and lay upon her bed. After spending about an hour in the house, I examined the dressings again, found them perfectly dry, and returned home.

About an hour after my return, I was requested to visit the patient as soon as possible. Upon arriving at the house, I found her sitting up, and the dressings saturated with blood. I immediately removed the dressings, checked the hæmorrhage by pressure with both thumbs, and requested them to send for a consulting surgeon. Dr. Mott being out, the husband went in search of others; and, to show the scarcity of doctors, at times, in New York, I will mention the singular fact, that he walked rapidly from Cottage place, through Bleecker street, and down Broadway as far as Dr. Cheesman's. Although this was done at mid-day, and upon a pleasant day, he could not find a surgeon or physician at home, or in the street, and returned without one. In the course of a short time, however, Drs. A. C. Post, A. L. Cox, V. Mott and J. K. Rodgers, severally arrived, in the order mentioned.

It was suggested by Dr. Mott, at the consultation, to arrest the hæmorrhage, by placing a small piece of dry compressed sponge at the bottom of the wound, and then to fill up the wound with other pieces; over these to place a larger piece of sponge, and for an assistant to make gentle pressure with the hand until the hæmorrhage was arrested. This course was concurred in by the other gentlemen, and carried into successful execution. The hæmorrhage did not return. For the first few days, pressure was made by hand, and afterwards by adhesive straps, which did not effect the pulsation in the radial artery. The patient was kept in bed, perfectly quiet, upon her back, and bore the confinement with remarkable patience.

For the first week I watched the case night and day, except when I was relieved by Dr. Post or Cox, for a few hours, and also by Dr. V. Mott, Jun. Drs. Mott and Rodgers continued as consulting surgeons. The pieces of sponge were gradually removed, and on the tenth day the last sponge was removed, without any signs of hæmorrhage. The wound was dressed with lint, spread with yellow resin ointment, and pressed to the bottom. On the sixteenth day, the wound had nearly healed, and the patient was desirous of sitting up. This, unfortunately, she was permitted to do. While sitting in her rocking chair, she was attacked with a chill, which was subsequently followed by erysipelatous fever. During the previous week, she had been troubled with a severe, obstinate attack of vomiting; and when the erysipelas appeared, this symptom returned, with a distressing pain in the left side. The pulse was about 120 through the whole progress of the disease. The tongue was furred, but moist, until the latter stages of the malady.

A redness, with tenderness upon pressure, appeared on the back part of the right shoulder, a few days after she complained of the chill. The erysipelas, which assumed the erratic and typhoid form, extended across to the opposite shoulder down the back and chest, and to the elbow of the right side. It extended also over the face and head, producing considerable tumefaction of the face, closing the eyelids, accompanied with a brown, dry tongue, soreness of the throat and stomach, stupor and delirium. Every effort was made by my colleagues and myself, to check the progress of the disease; and every attention and kindness was shown her by her family and friends, but without success.

When the erysipelas first appeared, it was covered with scorched rye flour, and the sound skin adjacent was pencilled with the tinct. of iodine, but it did not arrest it. Leeches were applied to the right arm; emetics, cathartics and enemas were administered as they were required, with the sol. ammon., acetat., and occasional doses of the sul. morphine, and tinct. belladonnæ. There was some ptyalism occasioned by a dose of the hydrarg. sub. mur. administered by one of my colleagues, who had charge of the patient for a few hours. The salivation, however, was relieved by slight astringent and mucilaginous washes. The severe vomiting, which occurred twice during the confinement of the patient, was most effectually relieved by an epispastic, applied over the abdomen. During the latter stages of the disease, when the symptoms became typhoid, our chief reliance was on the aromat. spirits ammon., wine and quinine. They did not succeed, however, in saving our patient, and she died on the fifth of February, about four weeks after the operation.

A post-mortem was not made, as the husband stated that some of the family were opposed to it. Thus unfortunately terminated a case, which was commenced with the belief that the result would have been far different and more satisfactory.

It occurred in a patient from whom I had received uniformly, kind and respectful treatment for a number of years; and every practitioner of experience can appreciate the disappointment which was felt when it terminated so contrary to our wishes. It affords, likewise, a lesson to surgeons, both old and young, that however safe and practicable an operation may appear, still perilous consequences may unexpectedly ensue after its performance. In the simple operation of vaccination, we all know cases have occurred where there has been predisposition to erysipelas; and where that disease has supervened, terminating fatally. It has also been produced by any irritating cause, by the use of mercury, exposure to cold, and sudden emotions of the mind.

Remittent Fever with profuse hæmorrhage from the bowels—recovery.—Dr. Macdonald mentioned that he was called on the 17th December, 1844, to see J. W., in consultation with Dr. James S. Cooper, who informed him that the patient had been ill for a week before he had placed himself under regular treatment, and that during this period he had taken two drastic purges. Dr. Cooper found him on the 10th December at his first visit, laboring under the ordinary symptoms of remittent fever—with a pulse about 95, and slight tenderness of the abdomen. He administered 15 grains of blue mass, which acted mildly as a cathartic, and followed it by mucilage and ipecac. He also gave a few minute doses of calomel without any apparent constitutional effect, and allowed him as much ice as he chose to take. Under this treatment the case appeared to be going on favorably (the patient's bowels being moved twice daily), until the morning of the 17th, when Dr. C. was called in great haste, and found that J. W., on going to stool, had passed about a pint of almost unmixed blood—he was perspiring profusely—his pulse about 80, full and soft. On consultation 1 grain of acetate of lead, with $\frac{1}{4}$ grain of opium, was now ordered to be given every hour, with the free internal use of ice. There having been two more large evacuations of blood during the day, the lead was given in doses of 3 grains every two hours. 18th. One discharge of blood during the night—tongue dry and coated; with a red tip—the lead continued in 3 grain doses every six hours. 19th. A bilious-looking evacuation unmixed with blood—the symptoms all more favorable till the morning of the 20th, when he had two pretty free discharges of blood in quick succession. The lead, which had previously been exhibited every six hours, was now given every three hours during the day, but with little benefit; as the hæmorrhage recurred every four or five hours. On the 22d, in consequence of the continued recurrence of the hæmorrhage, and particularly as it seemed more profuse during a daily evening exacerbation of fever, the lead was discontinued, and 1 grain of sulphate of quinine administered hourly during the remission, together with 10 grains of alum every hour.

23d. Three discharges of blood since yesterday morning—pulse about 90 and very small—the patient sinking. Omit the medicines prescribed yesterday, and let the patient take nitrate of silver 1–2 grain with opium $\frac{1}{4}$ grain combined, every three hours; and in the intervals powdered ipecac 2 grains and catechu 3 grains, so that both the former and the latter were each exhibited every three hours—warm turpentine was also applied over the whole surface of the abdomen.

24th. Two small discharges of blood during the past night; tongue clean, but disposed to dryness—pulse 90—symptoms generally better. 25th. No passage of any kind from the bowels since yesterday morning—continue treatment. 26th. The same—but towards evening, after considerable uneasiness in the bowels, he had two pretty free and natural-looking evacuations. From this time the case went on well. There was no return of the hæmorrhage, and the patient slowly recovered under the use of tonics (iron and quinine). He is now perfectly well, attending to his ordinary business, and is more fleshy than he has been for years.

It may be added that he had two or three times during his illness hæmorrhage from the nose—that the whole quantity of blood lost from the bowels was at least 10 lbs., that the whole quantity of acetate of lead taken was 3 ounces—and of the nitrate of silver 12 grains.

CASE OF RHEUMATISM OF THE UTERUS. By Isaac E. Taylor, M. D.—April 4, 1844, P. M., I was requested to visit Mrs. McG. Mimifare, aged 23, who was supposed to have all the symptoms of being shortly delivered, though but five months advanced in gestation. I found the patient lying upon her back, and complaining very much of the excessive pain she was suffering, which came on in paroxysms, and which lasted fully five minutes. The countenance expressive of much pain, abdomen tender to the touch. Uterus hard and contracted, skin natural and pulse tense. The pains were of an expulsive character. An internal examination discovered the neck of the uterus very hard and firm—the os closed, exceedingly sensitive, and covered with a number of follicular glands, enlarged to the size of a pea, the uterus during the contractions appearing to force itself completely into the cavity of the pelvis. The remissions were not of long duration. The treatment was warm fomentations to the abdomen, pulv. Doveris 10 grains every three hours, and after two doses and the frequent application of fomentations, the paroxysms ceased, and she slept well during the evening. The paroxysm in this instance commenced at 12 o'clock A. M. and ceased at 1 P. M. April 5th, A. M., the husband came in great haste, saying she was expected to be confined every moment, and would probably be delivered before I arrived. When I arrived, her screams were very loud, from the severity of the pains she was suffering—countenance anxious—the abdomen could not bear the slightest pressure. The uterus strongly contracted, and I was informed that the pain had continued one half hour—it having a true expulsive character. Both she and her friends could not be persuaded but that the child must be shortly delivered—the skin hard, dry, pulse quick and hard, tongue furred, belly slightly tympanitic—and she was unable to move, and remained all the time upon her back; there had been no discharge of the water, no hæmorrhage, and the paroxysm had continued from 3 o'clock and lasted till 9 o'clock. An examination discovered the neck of the uterus hard, os uteri closed, but excessively tender to the touch. After the contractions the neck of the uterus would assume its natural soft and pliable feel. The treatment was the same as previously ordered—and she remained comfortable till half past nine P. M. The next day, when I saw her, firm contractions had occurred, and her pulse slightly accelerated, skin rather dry, and she was talking incoherently at intervals. Tart. emetic $\frac{1}{4}$ gr. every 2 hours. She was not seen till 12 o'clock the next day, when she was lying perfectly quiet on her back, looking vacantly, pupils dilated, mouth closed, pulse 90, the contractions of the uterus had ceased since last evening. At 4$\frac{1}{2}$ P. M. I was sent for, saying she was dying, but I did not see her till 6 o'clock, when she had passed into a state of stupor, lying on her back, with limbs extended, but no stertorous breathing. Pupils dilated and did not move by the light, totally insensible. At this stage of the attack, Dr. Boyd saw her with me, and advised the continuance of the remedies that had been given; and 20 hours from the first incoherence of speech, she recovered, though slight paroxysms ensued afterwards, which were quieted; and she passed to the full period.

Remarks.—I have styled this a case of Rheumatism of the Uterus, differing, as I conceive it does, materially from any case of false pains, neuralgia or premature labor. I incline to this opinion, as false pains never come on so suddenly; the contractions so severe and of such duration, the tenderness so great and diffuse, the inability of the patient to move, and unwillingness to do so, the extreme anxiety of countenance (the sympathy of the brain so great as to produce convulsions), the screams of the patient so violent and the paroxysms so frequent, the desire of the patient so certain that the child must be delivered, the os uteri so excessively tender as to induce the patient to scream out with the pain, all are symptoms that are so totally different from false pains as to make me believe that there is no similarity; and the convulsions that ensue do not differ in any respects from the cases reported by McLeod, Budd, and others, where the brain had appeared to be sympathetically affected through rheumatic pericarditis, and differing from those cases which are in connexion with rheumatism of the synovial membrane without pericarditis. The treatment adopted was the same. Its similarity to neuralgic pertiritis I think cannot be drawn from the diffuse character of the tenderness and not in certain parts as the iliac, hypogastric and inguinal, the hard and firm contractions of the uterus, the want of much tympanitis, and the frequency of the paroxysm. From neuralgia, I think it will be conceded that it differs; for in neuralgia the paroxysm, when severe, continues uninterrupted for some time, and after it ceases it seldom returns but after an interval of some hours or days, and is not of an expulsive character, nor are profuse perspirations noticed. With this short distinction, therefore, of the case, and its concurrence with the descriptions so fully and ably drawn by Wigard, Carus, Schidtreller, Haase, Welter, Siebold, Busch, Joerg and Moser, I am disposed to believe it a case of Rheumatism of the Uterus, and so consider it.

Tympanitis Abdominalis—On the evening of June 10th, 1844, I was requested to visit a young man who had been stabbed near my residence, and whom I found lying on the floor, his wound exposed, which was on the left side, and a slight discharge of blood flowing from it; the wound measured 1½ inches in length, and perforated the cartilages at the junction of the 8th and 9th rib, in an oblique direction, being in a direct line from the nipple, and measuring 3½ inches from it. A small probe passed with ease through the cartilage to the distance of over 2 inches, and, as I supposed and believed, perforated the peritoneum. The wound was drawn together and a ligature introduced, and adhesive plasters applied. He complained of no pain, except a slight smarting around the wound—no vomiting, and no pain on pressure. His bowels were regular, and he had not eaten anything since his dinner. He was directed to remain perfectly quiet in the horizontal position. He slept well during the evening, and was seen at 6 o'clock the next morning. He remained at this time the same as last night, and continued to remain easy till 3½ P.M., when I was sent for to see him immediately as he had swollen very much at the lower part of the abdomen, and was very tender. I had seen him at 12½—three hours previous, when he appeared as well as in the morning at 6 o'clock. I found his pulse had risen to 110, small and tense, skin hot and dry, tongue slightly furred, respiration 30 per minute, abdomen tympanitic, and swelled as high as the umbilicus. 16 oz. of blood were abstracted, when he fainted, and he was directed to take hydr. s. mur. et p. opii, two grains of the former with 2 grains of the latter, every two hours, leeches to abdomen, to be followed afterwards by poultices or bladders of hot water to the abdomen, barley gruel or water as drinks.—9 P.M., no improvement, abdomen more tympanitic and larger, and at this time he complained of *no pain*, and said he felt very well.

June 12, 6 A.M., slept tolerably well during the evening, tongue cleaner, pulse 98, skin not so dry, respirations 36, abdomen not reduced and tympanitic, no pain, decubitus dorsalis. Treatment:—Hops to the abdomen, pulv. opii, 1 gr. every 2 hours. 6 P.M., tympanitis increasing, slight pain, and skin hotter and dryer, leeches and fomentations. 8 P.M., enema, had a free motion, and no discharge of air with it; the bougie was introduced high up, but no gas passed, and the bowels were natural in color, and of soft consistence.

13th, 10½ A.M., tympanitis increasing, pulse 104, skin natural, tongue slightly furred, talks with ease, respirations natural, passes urine easily and in usual quantity.

4 P.M., has increased still more in size, &c., he measured around the chest on a line with the nipple 37 1-2 in., natural size 32 in., around the umbilicus 34 in., intercostal spaces dilated, clear and resonant as high up as the 4th rib on both sides, heart heard pulsating over the whole abdomen, and more on the right side than the left, maximum of sound 1 1-2 inch above the nipple, and one inch to the left; the ribs are only as far as the 4th rib movable; distance of the wound from the nipple 5 1-2 inches, and 2 inches from direct line; decubitus dorsalis; complains of no uneasiness of the head, no pain, but disposed to sleep; respirations 26, pulse 104; says he feels better, skin natural, and has been changed to a cot without pain; continue same treatment, has taken 16 grs. opium, thus far.

14th, continues the same, but has increased much more in size.

9 P. M., Dr. J. Kearney Rodgers saw him with me, when he measured around the thorax 39 in., abdomen 38; slight perspiration, pulse 96, skin natural, and no pain—treatment continued, 1 gr. every hour.

He continued to improve under the use of this treatment, till the 18th; and was, on the morning of that day, as he said, "nothing the matter with him, and he felt as well as ever," and was reduced to 35 in. around the chest and abdomen: during the last two days, he had taken for nourishment chicken and beef tea. At 4 P. M., I was requested to see him immediately, as he was much worse. I found him in intense pain, hands and feet cold, pulse small and feeble, eyes appeared sunken, and diarrhœa; he had increased to 40 inches around the thorax and abdomen. Stimulants were given every hour; he passed a very restless night, but was better the next morning, when Dr. Rodgers again met me in consultation; his pulse was 104; belly not quite so large; very tympanitic, and the sounds elicited by percussion were audible in any part of the room, and as resonant as though they emanated from a drum; treatment continued till the evening, when *paracentesis* was performed, and nothing but *air* escaped, which possessed *no fœtor*, and occupied 15 minutes in passing out. At this time his intellect was clear, and it remained so till his demise, which took place the next day at 2 o'clock.

Post-Mortem.—As I was unable to attend the *post-mortem* before the Coroner's Jury, it was made by Dr. Busteed, in company with Dr. Beales—(Gorham.)

The wound had penetrated through the walls of the abdomen obliquely upwards, having passed through the cartilages of the ninth rib at its junction with the eighth. The internal wound measured ¾ inch, and penetrated immediately below the attachment of the diaphragm, the anterior and cardiac portion of the stomach about two inches from its cardiac portion. The wound in the stomach was about ¼ inch in length and was slightly united; the stomach contained about 8 ℥ of dark, brown fluid; mucous membrane healthy, omentum scanty, much inflammation, and recent adhesion of the entire intestines. The abdomen contained about two pints of fluid, the entire peritoneum in a state of inflammation, and adhered to the intestines; lungs and heart healthy; liver paler than natural; gall-bladder and spleen larger than usual.

Remarks.—The subject of Pneumatosis is one of no little interest, and it is somewhat singular that it has not been more thoroughly investigated, whether in the normal or abnormal tissues.

Cases of idiopathic tympanitis abdominalis have been recorded by Heister, Cambalusier, Stœrck, Schuler, Bell and others, though Abercrombie, and other authoritative authors, as Elliotson, Hodgkin, &c., have entered their denial. Nor are cases of secretion of air into the thorax wanting, as they have been attested by Frank, Laennec, Cambalusier, Graves, Portal and others. The pericardium has been occupied with gas, as Albers, Testa and Portal have adduced; the blood-vessels of the brain have not escaped, and have been observed by Morgagni, Lieutaud, Sebastian, Cardogeas, Baumes, Frank, Villermé and Ribolli de Gex; the urethra, the uterus, and even the gall bladder have been noticed as containing it.

I think it will, therefore, be conceded, from the numerous instances recorded, and attested by such authorities, that the tissues of the living body, as well during health and disease, do separate gases from the blood analogous to secretion, is a fact fully and indirectly admitted by most, if not all modern physiologists, though still there are many who will not yield their belief on this point. I apprehend, therefore, that the most important, and still to appearance undecided question with the profession, is whether the serous membranes do secrete gases, or whether it has been secreted by the mucous membrane, and through endosmosis passed into the serous cavities. Those who do not give credence to the secretion of the gas by the serous membranes, find a ready, plausible, and, to appearance, true solution, under the law of the penetrativeness of fluids, so ably advocated with so much ingenuity, and skill, and research, by Dr. Mitchell of Philadelphia, and which may explain many phenomena hitherto imperfectly understood; affording new views, as it does, of the theory of respiration, and accounting in that process for some well ascertained facts for which there previously existed no adequate explanation; showing how emphysema and tympanitis may happen without secretion of gases or lesions of tissue, and how a spontaneous cure may be produced; leading also to the probability of the existence of gaseous matters of various kinds in almost every part of the animal frame, residing there molecularly, and not "*en masse*," but susceptible of being collected into the great cavities or the cells of the tissues or blood-vessels by mechanical or electrical influence, or the attractive interstitial agency of other masses of air.

This case is interesting, not only as adding, as I conceive, another instance of pneumatosis, but as showing the large quantity of opium (115 grs.) that had been taken by the patient during his sickness, producing at one time a great diminution of the secretion, not affecting the brain at any time, and retaining his faculties to the last moment, producing no heat of skin, nor excitement or depression of pulse, and every function of the system appearing natural till the 18th, prior to his death. To some this treatment may not be deemed prudent, but when I am sustained by the authority of Hamilton, Armstrong and Stokes, I have no charge of impropriety to bring against myself.

Case of Pleurisy (terminating favorably by profuse perspiration).— I was requested to visit Mr. McD., May 17, 1844, aged 30, who complained of a severe shooting and cutting pain in the left side, with difficulty of breathing freely, a short hacking cough, no expectoration and rigors. He had been complaining in this manner for several days. The auscultatory signs gave evidence of pleurisy, with effusion, as high as the 3d rib, and the respiratory murmur very feeble at the apex of the lung. He was treated according to the usual method for two weeks with very little benefit, and during this time the patient had lost but a moderate proportion of flesh, when on the morning of the 14th day of the disease, profuse perspiration set in which continued without any abatement till the end of the 5th day, and he was obliged to be changed numerous times during the day, being literally drenched with perspiration. The sweat began to moderate on the 6th, and terminated on the 7th with no effusion in the chest, and feeble respiration audible over the whole lower portion of the left side, with a slight mucous rattle. On the evening of the 3d day the effusion had almost entirely been removed; still the sweat continued till the 7th, when he was reduced to a mere skeleton.

Case of ununited Fracture of five years and a half duration undulated.— Mrs. H , aged 65, married, had a fall five and half years ago last fall, down a pair of stairs striking on the tibia of the left side lightly, but with more force on the knee. She complained of no pain in the tibia, and had severe pain in the knee, which increased much in size, and confined her to the bed for some months, and afterwards was obliged to use crutches, which she has never relinquished. Several medical gentlemen had seen her, and particularly Dr. Sweet, the bone-setter, who manipulated on the knee and lower joints several times, and insisted that the bone was reduced, believing it to be a luxation of the knee. On the 8th of January, 1845, I was requested by a physician to visit her with him on account of the enlarged state of the knee joint. On inspection and a slight manipulation, I concluded that it was one of hydrops articuli. The limb was very much flexed, and she could not make any extension with it, the contraction was so rigid. My attention was only drawn to the knee, no other part of the extremity being suspected as being injured or diseased. She was placed under the tinct. iodine externally, and hydriodate potassæ internally. There was much improvement in the knee, so that on my third visit she could move the limb freely, and extend it out as far as the right limb; the effusion had all been absorbed, and during this visit, on carrying my hand down the limb to notice the effects of the tinct. iodine on the cuticle which had left it in a state of desquamation, I happened to feel a slight depression on the tibia 3 in. from the internal malleolus, and with a slight rotation discovered a crepitus at that point, and which was satisfactorily corroborated by the use of the stethoscope. The fracture was transverse, and would thus account for there not being any retraction at the end of the tibia, and also for her being able to stand upon the limb occasionally. Friction has been instituted with a proper apparatus to produce irritation of the ends of the bones, so that it can in time be properly adjusted. Should this not succeed, either the seton or the excision of the ends of the bone will be put in requisition.

Cases of Aphonia, by Isaac E. Taylor, M. D.—Since the last meeting of the Society, I would state that twelve cases of aphonia, several of which resulted from cold, had been treated by the application of the nit. argenti to the superior opening of the larynx, and *into* the larynx by means of the probang, with a piece of sponge attached to the end of it. The duration of the aphonia varied in all the cases; generally it had been from one to two months, some three or four months, and one of seven or eight months. From the short time since the application, no positive conclusion in the cases of the beneficial and curative effects could at this time be positively ascertained. Three had been perfectly relieved after the third application, five did not return, and the rest were under treatment. Three of them were cases of laryngeal phthisis, and one of syphilitic laryngitis of seven months. The cause of the five patients not returning, is to be attributed more to the disposition the poor have to neglect any advice that may be proffered them even for their benefit. Therefore these cases cannot be fairly included as among the number that could militate against the application. Two of the five were materially benefited by the various treatments that had been adopted. The three cases of laryngeal phthisis had been only partially relieved.

Case of Aphonia of three months' duration—six applications—cure.—Mrs. A. presented herself to me for treatment the latter part of February, for loss of voice, which had existed for three months, and which she had incurred from her exposure to the cold air after a party. A catarrh had existed two or three weeks previous to the aphonia, which came on during the morning. She could not be heard across a small room—there was no fever—no decided redness of the pharynx—the epiglottis not perceptible to the sight, to the touch thick and erect, and the opening of the larynx small—a variety of treatment had been gone through with, but without any benefit; her present situation was, she had no expectoration—no fever—but a slight smarting sensation in the larynx—deglutition painful at times—not much pain on pressure. Under these circumstances the topical application of the nitrate of silver was deemed the best course of treatment to adopt, of the strength of 45 grains to the ounce of water—six applications were made, when her voice was perfectly restored.

Case of Aphonia, one month's duration—cure immediately—Case 2d.—Miss A. B., aged nineteen, asked advice for a loss of voice which had existed four weeks—she had had an acute attack of catarrh with some fever two weeks previous, when the aphonia took place, which remained the same, at the time I saw her, as it did when it first showed itself, and without any amelioration at any time. Pharynx natural—tonsils the same—no soreness or pressure externally—no fever—deglutition not very painful, though at times it feels sore. The nit. argenti 132 grs. to the ounce was used—and after a second repetition at the same sitting, she spoke as well as any person—and continued to do so till she left the city three days afterwards. I have noticed not less than five instances where the aphonia had been dissipated instantly from the prompt and immediate application of the caustic. I cannot call to mind a season where so many affections of the throat and especially aphonia, and abscesses of the internal faucus in various situations, have occurred as this winter.

Case of Aphonia of three months of Laryngeal Phthisis and during the course of Phthisis, three applications—cure of the aphonia, phthisis progressing—Case 3d.—Mrs. M. presented herself to me for my advice in her case, not especially for the aphonia, which had continued three months, but for phthisis, which she had labored under for six months—having at the time I saw her all the marked natural symptoms of phthisis well advanced—cough, hectic fever, chills and night sweats—purulent expectoration—great dyspnœa—inability to walk but a short distance, and could not ascend up stairs without afterwards sitting down to recover her strength and health to enable her to state her exact situation. The physical signs were cavities in both lungs—the voice was so entirely gone as to require me to hold my head close to hers to understand what she had to communicate. Pressure upon the larynx gave her some pain and soreness—deglutition painful—and she only took fluids, being unable to take solids. I did not expect much benefit from the treatment of the nit. argenti, but I conceived it proper to make an application with a solution of 30 grains to the ounce. Three applications were made, and the last of the strength of 60 grains, and at her fourth visit, at an interval of ten days from the last application, she spoke as clear as myself—her respiration more free—her strength much improved, and she was delighted with the effects of the treatment.

Remarks.—Since this report, numerous cases of aphonia resulting from cold of several weeks' duration, and other affections of the larynx, where various remedies have been used, have passed under my notice, both public and private, and many of them have been perfectly relieved—in two instances *immediately*, although the *aphonia* had existed from four to six weeks. Two of the three cases of laryngeal phthisis have entirely recovered their voice, and say that they have improved much in strength, and do not have as severe perspiration during the night. The syphilitic laryngitis had more than a dozen applications, and several have seen the beneficial effects that it has produced upon the disease, though at times it is partially aphonic still. After the twelfth application one day she spoke with a clear voice the greater part of the morning. With the success that has attended the treatment of these cases, I think it will not be denied that there is a marked curative effect in the local application of the nit. argenti, though it may be denied that it is not made directly into the larynx, and the only test I conceive therefore, on this point, is, the *feeling* of the probang in the larynx. Cases, it is true, may occur where it might be seen, but they are rare. As an instance of the former remark, I would adduce a case where two medical gentlemen were present when the application was made, and who had not yet yielded their belief to its direct application into the larynx, though it had been made several times in their presence; the sponge was introduced into the larynx, where the probang retained till they both *had felt* it positively and distinctly, and they then gave their positive and satisfactory assent to the truth of the case. The larynx in this instance was large, the epiglottis small, the tongue short, and its position not deep, nor was there the slightest evidence of strangulation during the whole proceeding.

To MM. Trousseau and Belloc is the credit due of bringing this method of the application of the nit. silver to the notice of the profession, and it has received the sanction of, and is practised by, Cusack of Dublin, Vance of London, and other gentlemen, and was adopted by Sir Charles Bell. I am aware that much doubt has been entertained respecting the direct application into the larynx, by the profession in this city, and it appears to result from the *old* established opinion, that if a drop of water should pass into the larynx it will produce excessive coughing and strangulation, and perchance asphyxia. How many instances, I could ask, have there been of substances that have passed into the larynx, and yet asphyxia has not resulted? nor are we to forget that the bougie has been passed down into the bronchia, and that Aretæus* was accustomed to blow fine powder into the larynx. Strangulation has not resulted in this instance to such an extent as to produce such an amount of fear as to preclude its further application, and if so, why should we be so startled at the application of the nit. argenti by means of the probang? Feeling therefore, only, in these cases is believing, and one's testing it himself. In answer to the questions that might be propounded that convulsive motions and strangulation must ensue, I can only say, as far as my experience has gone, I have observed few cases where even the slightest strangulation had been noticed; it producing sometimes, it is true, vomiting and coughing, though not excessive. But the convulsive motions, I apprehend, are not to be entertained, through the fear of its passing directly into the larynx only, but as Muller testifies in his Physiology, "That local irritation of any part provided with mucous membrane, is adequate to excite the respiratory system of nerves to morbid action, so as to produce convulsive motions. Irritation of the mucous membrane of the nose produces sneezing; irritation in the pharynx, œsophagus, stomach or intestines, excites the concurrence of the respiratory movements to produce vomiting. Irritation of the mucous membrane of the larynx, trachea or lungs, or even itching of the eustachian tube, excites coughing." Respecting the method of applying the probang, I would with diffidence dissent from MM. Trousseau and Belloc in the manner of its application, and instead of carrying it to the back of the larynx, and then waiting for the larynx to be elevated, I have carried the instrument sideways over the base of the tongue, the sponge looking to the right side; and as the tongue is requested to be protruded, the epiglottis becomes erect, and as the larynx is elevating, the sponge, if not too large, is brought to a level with the superior opening, and passed directly into the larynx, and the fluid is expressed by the quick contraction of the posterior muscle of the larynx, which contraction is distinctly perceptible to the fingers of the operator, and with a slight motion or the request to protrude the tongue, the probang is removed with ease. The operation is made especially easy when the epiglottis can be distinctly seen and felt, the root of the tongue not deep or broad, or thick and elevated; nor the tongue long; whilst in others the tongue is so very long as to preclude the epiglottis from being distinctly felt; and again so deep is the larynx in other cases, that it cannot be reached with the finger; nor must we forget the difference in the size of the opening of the larynx, that we may judge what kind of instrument we are to use in each case.

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* *Sprengel*, in his "History of Medicine," states that Hippocrates was in the habit of introducing a tube through the nostrils into the trachea, *Paulus Æginita.* Translated by W. Adams, p. 466, Ed.

The strength of the solution used is usually to commence with 40 grs. increased up to 60 grs. to the oz. of water, though I have used it as high as 132 grs. to the oz., and Trousseau and Belloc as high as 160 grs. to the oz. When the solution is used of this strength, it gives rise to so much irritation for several days, as to deter the patient for a while to have a second application, and its results are not so favorable.

It is a truth that I think will be conceded, that men in every current age, look on all new doctrines with distrust and even suspicion, as interfering with this accommodating and somewhat prejudicial principle, that knowledge is truth and power. But when discoveries, ripened into real benefits, have first upset and then supplanted old philosophy, men then wonder how their previous philosophy could have lasted so long and been maintained so satisfactorily. It is not, however, the province of the new age to dissect the ingenious arguments of the ancients in order to keep up their fabrics, but to exert itself in the field of inquiry, and if possible, discover what has escaped former ages; and this being done, to reform the ancient, or make a new philosophy more suited to its wants.

[In order to understand the application of the following remarks of Dr. Horace Green, we may state that considerable scepticism has existed in the minds of many of the members of the profession, in this city and elsewhere, in relation to the practicability of applying caustics to the internal surface of the larynx.]

With regard to this question, said Dr. G., of making topical applications into the larynx, to which Dr. Taylor has alluded, in the cases just reported, I will take this opportunity to remark, that, in the minds of many intelligent physicians, who have seen the operation, there remains no doubt whatever of its entire practicability.

It will be recollected, by many gentlemen now present, that several years ago, I called the attention of the Society to this subject. I then exhibited an instrument, by means of which topical remedies were applied; and reported some cases of laryngeal disease, where permanent cures were effected by this mode of treatment. But there was manifested, at that time, by the members, such a degree of scepticism on the subject, that I have since refrained from bringing the matter again before the Society. But, in the meantime, I have been treating my patients, who have suffered under laryngeal and bronchial affections, by this method, and with an amount of success, which has been in the highest degree satisfactory. During the last six months, upwards of fifty cases have come under my care, and in the treatment of these cases, in more than five hundred instances, have topical remedies been introduced, below the epiglottis, into the laryngeal cavity! Nor have these things been done in a corner, for, from among our most respectable physicians, some twenty or thirty, at least, have, from time to time, been present, when these applications have been made. Many of these gentlemen have since adopted this method of treating these diseases; some of whom are now present, and are willing, I doubt not, to testify, not only to the practicability of the operation, but to the success which has attended this plan of treating laryngeal disease.

In many instances, where chronic affections of the throat have existed for years, and have been attended with ulceration, with hoarseness, and, in some cases, with complete aphonia, of many months' standing, the parts have been restored to a healthy condition, and perfect vocalization re-established.

But, whilst many medical gentlemen of this city have been present, and have witnessed the introduction of a strong solution of crystals of nitrate of silver into the laryngeal cavity, I am not ignorant that there are others, who, judging from analogy, and the experience of the past, entertain the same opinion that has been expressed this evening, namely, that it is altogether impossible to enter the glottis in this manner.

With all proper deference to the opinions, in ordinary, of these gentlemen, I would remark, that mere *opinions* in medicine, however extensive the experience on other subjects, of those by whom they are entertained, cannot be received, at the present day, in opposition to *facts* in medicine. Wherein, I would ask, consists this impossibility of entering *intentionally*, a tube, or cavity, which has been, in so many instances, entered *accidentally?* The epiglottis, or valve to this opening, except at the moment of deglutition, is always, by virtue of its own elasticity, retained in a vertical position; and it is well known that foreign bodies have frequently found their way, accidentally, into the larynx and trachea. Baron Larrey* has recorded the fact, that in attempting to pass the elastic tubes, for the purpose of conveying liquid nourishment to the stomachs of soldiers, who, from wounds of the neck, were unable to swallow, "the tube often went into the larynx, instead of into the œsophagus," and that when this happened, "the mistake was not discovered by any particular sensation about the glottis."

F. Ryland, in a "Treatise on Diseases and Injuries of the Larynx," says, that "an elastic sound, introduced into the larynx, does not give rise to any peculiar sensations that will indicate the occurrence with any degree of certainty."† Dr. A. H. Stevens, also, of this city, has assured me that in attempting to introduce the tube of the stomach pump, it has frequently passed, accidentally, into the larynx, without exciting any marked irritation. And yet these gentlemen, who have neither made the attempt, themselves, nor have seen it attempted by others, assert, in the face of all these facts, that the introduction into the larynx, of an instrument formed for the purpose, and guided by a hand endeavoring to effect the passage, " is altogether impossible ! "

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* Relation Chirurg. de l'Armée d'Orient.

† Treatise, &c., p. 241.

I am not surprised, however, that gentlemen, who ground their opinion upon the known irritability of those parts, should question the practicability of the operation. Dr. Taylor, himself, avers, although he had seen several of my patients, who had been successfully treated by topical medication, that he was altogether incredulous on the subject, until he had made the attempt himself, to enter the larynx, and was successful.

The well known fact, of the great irritation produced upon an individual, by the accidental introduction of a morsel of food, a drop of tea, or of any other fluid, below the epiglottis, is always adduced as an unanswerable argument against the practicability of introducing strong, medicinal agents into the laryngeal cavity. But this plan of reasoning from analogy is one not applicable in this case :—for it is a singular, but most interesting fact—one that has been fully established by repeated experiments—that the introduction into the glottis, of a sponge saturated with a solution of crystals of nitrate of silver, of the strength of forty, fifty, or even sixty grains to the ounce of water, does not produce, ordinarily, as much disturbance as the accidental imbibition into this cavity, of a few drops of tea, or even of pure water!

Among the patients who have come under my care within the last few months, have been several intelligent physicians, who have been sufferers from laryngeal disease. With these medical gentlemen there has not been, nor could there be, any uncertainty as to the *locality* of the applications ; and they have frequently, and individually, assured me of this fact ; a fact, too, which has been often observed by most of my patients ; that, after the employment of topical medication, no taste of the medicated fluid would be observed, until matter, by coughing, was expectorated from the air passages, when the peculiar flavor of the nitrate of silver—a most acrid bitter—would be perceived ; and this would continue to be observed, whenever the individual expectorated, for many hours after the operation.

I have made these remarks, not from any desire to enforce upon the attention of this Society, any method of treatment, or any peculiar views of my own—for this subject was not brought forward by me—but because I wished to explain, and defend, a plan of treatment which has met with opposition, and about which misapprehensions have existed, not with those who have inquired into its merits, or have tested its practicability, but with those who have formed their conclusions more from preconceived opinions, than from inquiry, and established facts.

Dr. *Green* then proceeded to read the following paper—

Allusion was made at the last meeting of this Society, to the *nature* of the different deposits which are sometimes found imbedded in the tonsillary glands ; and to that, also, of the morbid secretions which, at times, are developed on the surface, or in the substance of the laryngeal mucous membrane ; and as a difference of opinion existed in relation to the character of these marked products, I have taken some pains, since our last meeting, to examine the views of several different pathologists on this subject.

The tonsils, it is well known, are composed almost entirely of a great number of mucous follicles, loosely bound together, or aggregated into a mass, and surrounded by, or deposited in, cellular tissue. The follicles, in this situation, are subject to the same diseases as are those of mucous membranes elsewhere; namely, to inflammation, enlargement, induration, and softening. "The fluid which these follicles secrete," says Dr. Tweedie, "may be converted into pus, or into a peculiar concrete substance resembling, in consistence, *tuberculous matter;* or into calculous concretion varying in size from a millet seed, to that of a garden pea, or even larger. These various marked secretions may be contained in a single dilated orifice, or in a cavity formed by the union of several lacunæ.

Mr. Yearsley, of London, who has recently published an interesting work on the morbid condition of the tonsils and uvula, remarks that in chronic disease of the tonsillary glands he has not unfrequently found the hypertrophied gland filled with solid matter, of a dirty white color, which, from its calcareous appearance, he has considered not unlike the deposit on the teeth, and supposes it may originate in the same way as the *crusta petrosa*, from the salivary and other secretions of the mouth. In several instances, the same author states that he has found calcareous deposits imbedded in the centre of the diseased growth; and in one instance a calculus closely resembling a piece of rock coral in its arrangement.

With regard to the morbid secretions of the mucous membrane lining the upper air passages, I have at different times ventured to express the opinion that tuburculous deposits are sometimes found on the surface of the membrane lining the larynx, or collected in the mucous follicles of this cavity. I am perfectly aware of the high authority opposed to this statement, and I should not presume, from a limited experience, to express such a heretical opinion, if I were not sustained, on the other hand, by authority not to be altogether disregarded.

In M. Louis's work on Phthisis, published in 1825, he declared that not "in a single instance had he met with tuburculous granulations in the substance or on the surface of the epiglottis, larynx, or trachea." In the second edition of his Researches, published eighteen years afterwards, and now just issued by the "Sydenham Society," Louis reiterates the assertion, though not as positively and unconditionally as in his former work. He says, from his additional experience, "it may be regarded," in his opinion, "as a law of the system, that tubercles, so commonly and abundantly developed in the lungs, are not produced, at least *after the age of fifteen*, in the upper air passages; if such an occurrence does ever take place, it can only be regarded as a singularly rare exception to the ordinary course of things."*

Authority on this subject, coming from such a source, claims the highest consideration, and one of limited experience may well hesitate to entertain or express an adverse opinion. But it is the prerogative of all to investigate, and no opinion in medicine should be received as an established principle which depends upon the authority of a single individual, however exalted that authority may be.

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* Researches on Phthisis, by Louis, p. 45. Sydenham Edition.

The members of the medical profession in America—a large proportion of them, at least—are quite disposed to receive the views of the French pathologists as established truths, about which further investigation is considered medical heresy! A few years ago, it was promulgated by the French school of pathology that a morbid condition of the mucous glands of the small intestines was the essential characteristic of *typhus fever;* and this doctrine was received by a large class of the medical profession in this country as an axiom in medicine. So, too, the physiological system of Broussais; a system having enough of truth mingled with it to give it an air of great plausibility, was esteemed by a part of the profession in America, as a revelation in medical science. But it has fallen, says a late medical writer, before close observation and logical reasoning, and left the followers of Broussais, comprising almost the entire existing generation of French physicians, at sea without a compass.*

In 1838, Trousseau and Belloc, in their work on Chronic Laryngitis, declared that the "exploration of the glottis" in the living subject, is physically impossible; and few have dared, since that declaration, to point a finger to the glottis! although it and the larynx may be explored, with perfect facility and impunity, down even to the vocal ligaments!

The same disposition obtains with many of our profession, to receive, unquestioned, the opinions and conclusions of Louis on the subject under consideration. Others, however, whose opinions should have some weight with the profession, have questioned these conclusions; among these M. Andral, in 1840, declared that the mucous membrane of the larynx is, frequently, the seat of tuberculous deposits;—an opinion, I believe, to which he still adheres. In Dr. Williams's work on Pulmonary Consumption he remarks:—"If tubercle be, as we suppose, a degraded condition of the fibrin or nutrient principle of the blood, we may expect it to be deposited wherever the nutrition or the secreting process is carried on;—wherever lymph or pus is occasionally found,—wherever, in short, blood-vessels run. Tuberculous matter," he adds, "has been met with in coagula in the heart, spleen and blood-vessels, and it may be deposited in tissues and on surfaces, independently of irritation of these parts."

M. Tonnelé, a writer to whom Louis alludes, in his Second Edition, assures us that he has found tuberculous productions in the cavity of the larynx, among which were slightly softened tubercles, which had produced ulceration of the mucous membrane.

Dr. Carswell declares "that the mucous system is by far the most frequent seat of tuberculous matter;—that the presence of tuberculous matter in the larynx, in the trachea, and its larger divisions, is not often observed," but that "he has met with it in a few instances in the follicles of these parts, and occasionally in the saculi laryngis;" and he then makes this pertinent inquiry:—"May it not be owing to the facility with which tuberculous matter escapes, that we do not find it accumulated on the mucous surface of the larger bronchi, or the trachea, or that of the intestines?" In short, Dr. Carswell supposes that tuberculous matter may often be secreted upon the free surface of the membranes of these parts, but that not being entangled or confined in any mucous crypt, it is removed as soon as it forms. This view of the subject, in my opinion, explains the whole difficulty of the matter. M. Louis has not met with tuberculous deposits on the surface of the epiglottis, larynx or trachea, in adults, simply because all morbid secretions, and especially those of inorganizable matter, operate as irritants upon these parts, and are thrown off as soon as formed. This view of the subject is sustained by the fact—a fact which Louis recognizes—that tuberculous matter is frequently found filling the smaller bronchii; being secreted upon the mucous surface of the terminal branches, it is there arrested while it is thrown off from the free surface of the trachea and larger bronchii. The opinion now advanced is also corroborated by another important fact. It has been shown by M. Tonnelé, and admitted by Louis, that before the age of fifteen tuberculous matter may be deposited in the larynx; or, in other words, there may be lodged in the upper air-passages of the child, while the expulsive powers of the chest are feeble, morbid secretions, which are thrown off, as soon as formed, when those powers are strong, as in the adult.

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* British and Foreign Medical Review.

Sustained by these facts and conclusions, I am still of the opinion that, in several instances which have fallen under my observation, I have found in enlarged mucous follicles of the upper air-passages, and imbedded in the tissues of these parts, morbid deposits, presenting all the physical characters of true tuberculous matter.

Dr. Campbell Stewart reported a case of spasm of the intestine which terminated fatally. A mulatto female, aged 55 years, a cook, was taken in the morning with a violent pain in the left lumbar region. Dr. S. saw her shortly afterwards, her pulse was scarcely perceptible, and the pain intense; stimulants and anodynes were administered in conjunction with mustard poultices, a blister and warm baths—temporary relief was afforded, but the pain recurred in the evening with increased severity, and accompanied with a cold sweat, pulse still very feeble. Stimulant treatment was again continued, and a dose of calomel, with 3 grains of opium, administered. On the following day, found that the patient had been removed, contrary to directions, from the house in which she was taken sick, to her own room, which was a mile distant. When seen, she was in a state of collapse, and died in the course of the afternoon, 38 hours after being first taken sick; two small alvine discharges occurred previous to her decease.

Post-Mortem.—Brain not examined; lungs and heart healthy; stomach and upper part of intestinal canal, somewhat inflamed; liver and kidneys, in a normal state; spleen, very firm, and reduced to one-fourth its natural size. The mucous membrane of the descending colon was much congested, and softened about the sigmoid flexure, directly above which there was a collection of more than a pint of soft, yellow, feculent matter (the matter discharged immediately before death, consisted of small, hard, and black masses). The uterus of this patient was found to be converted into a solid schirrous mass, fully as large as an ostrich egg.

Dr. Stewart likewise stated, that he was called in consultation to a case of peritonitis resulting from an inguinal hernia, which had been reduced by taxis; enemata, purgatives, and blisters had been freely used; seemed impossible to procure an evacuation of the bowels. Patient appeared to be sinking very fast; low, feeble pulse; great tympanitis, anxious expression of countenance, and difficult respiration; blister had been applied 24 hours, without producing vesication. Dr. S. recommended 1 gtt. Croton oil, every hour: 10 drops were thus taken without producing any effect whatever. Twelve drops of the oil were now directed to be rubbed around the umbilicus, and the patient was left in an almost hopeless state. Two hours afterwards, was sent for in haste; found the patient considerably relieved: he had had a violent rumbling of his bowels soon after the external application of the croton oil, which was followed by the discharge of two chambers full, of black, tarry matter. After this, continued to improve gradually, and finally recovered.

Cases of Chronic Hydrocephalus, with the Post-Mortem appearances, by P. L. Vandervoort, M.D.—The subject of the following case—a colored child five years of age—was seized, for the first time, about the middle of August, with convulsions, which continued six or eight hours, and then passed off. She remained comparatively well—with loss of speech—for about five weeks, when she was attacked as before. The convulsions were general, and there was great flatulent distension of the abdomen: there was also hemiplegia of the left side. The fingers now slowly turned in upon the palm of the hands, and the hands were bent at a right angle with the fore-arm: the feet were turned upwards. She had more or less fever, with considerable heat of the head, and was extremely fretful; emaciation progressed daily. After another interval of five or six weeks she was again attacked with convulsions, and in 36 or 40 hours she died.

Post-Mortem Examination, twenty-four hours after death, assisted by Dr. Roberts.—The body was much emaciated. On removing the calvarium, the brain presented a highly congested appearance; its surface was spread over with a glutinous liquid, and there were several patches of lymph on the margin of the longitudinal sinus. Several ounces of serum escaped when the brain was being removed—there was no serum in the ventricles.

The substance of the brain was much softer than usual, the handle of the scalpel entering with scarcely any resistance. A large patch of the inferior portion of the left lobe of the cerebrum was reduced to a semifluid state, similar to that of soft custard—two scrofulous tubercles, the one larger than a nutmeg, the other a little less in size, were found on the surface of the brain, in its substance. The lungs contained small tubercles,—in the left lung was found one somewhat larger than a black walnut, which was quite firm. The spleen was filled with the same bodies. Liver and intestines were healthy.

Since the above case was reported, two other fatal cases of hydrocephalus have come under my observation, which I will briefly mention. To the first of these I was called about the middle of February—the child, three years old, had then been ailing some weeks. It now had convulsions—was excessively fretful, like the one whose case has just been detailed—was much emaciated, and would frequently put its hand upon its head as if there was pain there. As the case progressed towards the close, the fretfulness of the child increased—its nights were, for the most part, sleepless—it refused all nourishment, except wine-whey in small portions,—the pulse became very rapid and almost imperceptible—convulsions and spasmodic twitching of the limbs were almost constantly present, and continued until its death.

Post-Mortem.—As in the former case the body was much emaciated. Upon attempting to remove the calvarium a large quantity of serum was forcibly driven out of the left ventricle to the distance of five or six feet—a rupture having been accidentally made. The vessels on the superior surface of the brain were more congested than is usual, as was also the substance of the brain: on the under surface of the organ, surrounding the origin of the large nerves, was a distinct layer of coagulable lymph, two or three inches in length and an inch or more in width. No tubercles were found. The contents of the chest and abdomen presented nothing remarkable.

The other case was also recently attended by me. Its first symptom of illness was a tendency to diarrhœa, passing for a few days at a time greenish stools. These were readily checked by appropriate remedies. At this time there was no evidence of any derangement of the brain, but after the lapse of a few weeks the diarrhœa returned, and the child was observed to put its hand to its head and to rub it—like the other it too became very fretful, and passed restless nights. About twelve days prior to its death its face presented a singular appearance; on its cheeks and temples were large spots of a dark green and purple hue, very similar to that which follows a blow. The hands and feet, too, were much swollen, purplish and of death-like coldness—the pulse was scarcely perceptible. For more than a week before its death it would take but very little else than cold water. This child was also seized with slight convulsions a few days before its death; there was also some coma.

Post-Mortem Examination.—As in the formercase much fluid escaped during the efforts made to remove the skull-cap. The bones were remarkably thin. The vessels of the pia mater were somewhat congested—the ventricles contained no fluid. The substance of the brain was preternaturally soft; no tubercles were found. The lungs were healthy; the liver was much enlarged; the left lobe extended far across the median line, and the right lobe passed down to near the umbilicus. The whole of it was converted into what is called *fatty degeneration*, a state very seldom seen in so young a subject, it being one year old. The other organs were sound. Both of these were colored children.

Art. VI.—*Fibrous Induration of the Prepuce and Body of the Penis.—Amputation.* By C. B. Barrett, M.D., of Hallowell, Maine.

The subject of the following, "Cornelius," was a full-blooded African negro; a man of gigantic frame and strength of body. He measured 6 ft. 4 in. and weighed 218 lbs. All that I could learn of him, was, that about ten years ago he contracted gonorrhœa. At the commencement of his disease, he made the attempt to cure himself according to *his* "country fashion." Under his own treatment, he rapidly grew worse, and continued to do so up to the time of my visiting him—he having concealed his situation from every one. I also learned from him that his penis was much swollen, and that it had been as "large as his wrist for five years," and that it had been several years since he had been enabled to pass his urine in a "natural way." I visited my patient, professionally, on the 16th day of November, 1837, and on examination, the following distressing appearances presented themselves to my notice: The penis of this poor man had much the resemblance of a tumor, measuring $17\frac{5}{8}$ inches in circumference, of a semi-hemispherical form, filled with large watery excrescences, which bled freely at the touch, and contained a frightful fissure or cavity through which the urine passed incessantly, per guttam. The orifice of the urethra had partaken of the morbid growth of the penis. and was nearly two inches in length, byactualmeasurement, whilst the smallest probe passed up the urethra would be admissible scarcely three inches. The lymphatic glands, in consequence of the advanced stage of the disease, had become seriously affected. They were uncovered by the prepuce and very much enlarged—nearly two-thirds as much as the body of the penis. A peculiar mulberry, or strawberry aspect, was assumed by the penis, probably from the number of small tubercular tumors which enveloped it.

Under all the circumstances, and after mature reflection, I determined on its removal by the knife, as the only possible chance of saving the poor fellow. I performed the operation on the morning of the 19th, in the presence of Drs. Garland and Lee, after the manner recommended by M. Poirson, Chief Surgeon of Gros Caillon, viz. "by introducing a soft flexible sound, some inches longer than the ordinary ones, into the bladder, and directing an assistant to place one hand on the penis, close to the pubis, and to hold the loose end of the bougie and penis in his left." I divided with a small amputating knife, both the penis and bougie. As M. Poirson justly remarks, "the introduction of the instrument facilitates the operation, and renders the search for the arteries more easy." The bougie was removed and its place supplied by a small silver canula, to prevent a closure of the urethra. A compress and the necessary T bandage was all that was required to complete the operation.

4 P. M. A profuse hemorrhage has been going on—in all probability from the cells of the corpora cavernosa.

℞ Cortus quercus albi concisæ ℥ iv.
Aqua Bulliente Oiss.
M Fiat Lotionis, cum colu usa.

Pulse 128—full and steady. Patient complains of a rumbling noise in his left ear—says he feels as "if some one was pouring water from the nose of a tea-pot in his ear."

℞ Muriat. Morph. gr. $\frac{1}{8}$. Pulv. Rhei gr. xv. M. pro dosi.

8 P. M. Patient complains of intense pain in the stump—says he believes it to be in a vice. Hemorrhage has nearly ceased. Directed the application of pounded ice to the pubes. Take at bed-time,—

℞ Mass hydrg. gr. viij. Mur. morph. gr. $\frac{1}{8}$.

Pulse 100—soft and kindly yielding to the pressure of the finger. Has urinated once since the operation very freely. Says it gave him no pain—if he had not been informed that he had done so, should not have known it. Countenance cheerful and free from anxiety.

November 21st, 9 A. M. Visited my patient this morning, and found him improved in every respect. Says he "slept like a log all night." No pain in the stump. No unpleasant sounds in the ear. Has urinated very freely, since I last saw him—averaging $\frac{3}{4}$ of a pint each time. Enjoined a strict antiphlogistic regimen. ℞ ol. ricini ℥ iss.

Pulse 92—strong, and moderately full.

6 P. M. Patient still continues to improve. Thinks I am a hard master because I allow him nothing but gruel or boiled rice. Says he is very hungry, and wants something " solid" to eat.

Pulse 86. Soft and yielding. Countenance animated, and expression cheerful. Removed the bandage, and ordered the wound to be washed occasionally with the following lotion—℞ sodæ chlorid., ℥j aquæ fontanæ oj. The incision looked well, and appeared to be healing rapidly by first intention.

Passed urine twice since my last visit. Directed the canula to remain in the urethra, and reapplied the dressing.

November 22. Patient continues steadily to improve—may take arrow root, or sago pudding, and drink freely of slippery elm, or flaxseed tea. Urinates without the slightest inconvenience or pain, and can retain his urine ad libitum. Says he never felt better in his life.

Pulse the same as on my last visit.

November 23. Patient improving rapidly—appetite good, and nature again resuming her functions in a healthy and vigorous manner.

November 30. Unavoidably called away, to patients at a distance; patient has been kindly and attentively taken care of by my colleague, Dr. James Garland. The wound, at this date, has a healthy appearance, and is entirely healed over in a circular form.

Removed the bandages and catheter. Ligatures came away during the night spontaneously. Urinates in a bold, clear and full stream, and without any pain.

Pulse 88, full and moderate—tongue clean and healthy—appetite good.

December 14. Has been under the care of my colleague since my last visit. Dr. G. informs me that my patient complained of painful erections for which he ordered the following—

℞ Tinct. opii, ℥j, tinct. canthar. et camphoræ ā ā ℥ss. Take five to ten drops every four hours. The complaint speedily yielded to this treatment, and at the present moment he presents the following gratifying results: Wound is now the natural size of the urethra—is perfectly free from pain of every kind—can urinate boldly and freely, as much, he says, "as when he was a boy."

Directed the use of moderate exercise—a generous but healthy diet, and to wear for some few weeks a suspensatory bandage. Discharged cured, December 16th. Length of the stump on dismissal, 1⅝ inches.

Art. VII.—*Case of Punctured Wound, followed by a remarkable train of Symptoms.* By Luther Ticknor, M.D., of Salisbury, President of the Connecticut State Medical Society (with remarks by the Editor).

Mrs. A., about the middle of November, 1844, in washing some small articles of dress, pierced the end of the middle finger with the head of a threaded needle which she supposed penetrated the ball of the finger to the depth of from one third to one half inch. The first sensation was that of numbness, instantly following the infliction, extending up the arm to the axilla and front part of the shoulder. This was followed immediately by numbness of the fingers of the other hand, and next with faintness and vertigo, which brought her pretty soon to her bed. Some mitigation of these symptoms was procured by laudanum, so that I did not see her until severe pain and febrile symptoms, oppressed respiration and gastric sinking, excited some alarm for her safety, about forty-eight hours after the injury. I found her with hurried anxious breathing, very frequent obscure pulse, a moist surface, with temperature but little increased, almost constant chilliness, and what the patient called faintness. These two latter symptoms continued with very little variation for five or six weeks. A diffused swelling not easily defined occupied the upper portion of the "pectoralis major muscle," extending upward to the articulation of the shoulder; certain points on this tumefaction were excessively painful and tender to the touch. These tender points changed their location from time to time, so as to encourage the hope that some improvement was going forward.

The local treatment consisted of dry cupping, epispastics, fomentations, anodyne poultices, anodyne linaments, &c., with very little apparent benefit ; and yet anodyne poultices did the best. Internally, opium, in some form, and in large quantities, was indispensable throughout her treatment. Profuse perspiration, subsultus and incipient delirium pretty early suggested the use of tonics, of which sulph. quin. was preferred and freely used with advantage. About six weeks after the injury a slight fluctuation was felt under the edge of the tendon of the pectoral muscle, within the axilla. Forty-eight hours after it was discovered, a spontaneous discharge of at least eight ounces of rather thin purulent matter took place, and continued profuse from this orifice, and one made subsequently a little lower down upon the chest, for about two weeks, when constitutional and local symptoms gave place to returning health. Immediately after the fluctuation was discovered, Mrs. A. made free with London porter, it being the only stimulus of the diffusible kind her stomach would bear, and this it bore to good purpose. Mrs. A. is now entirely well, I believe, though perhaps the shoulder droops a little from the awkward position in which the arm was kept for a long time, rather than from any imbecility of the muscles. A deep depression marks the site of the abscess, showing a pretty extensive condensation or loss of cellular tissue.

Now, sir, is or is not this rather an uncommon history of a punctured wound ? Nothing like it has occurred within my field of vision, but that is no proof of anomaly. Is there not some analogy observable in this case, with poisoned wounds ? Will you be so good as to furnish some remarks on this case.

Remarks.—We thank our old and honored preceptor, Dr. Ticknor, for the above very interesting case, and hope he will favor our readers with still further contributions of a similar kind. Although we cannot hope to elucidate the pathology of this particular case by any remarks of our own, still we feel obliged to comply with his request by stating such suggestions as its perusal has given rise to in our own mind.

The case is one of uncommon interest, both physiologically and pathologically. We shall first notice the physiological deductions which seem to flow from this accidental wound, which, for our present purpose, we will view as one instituted for experimental purposes.

The nerve which was punctured, was undoubtedly a branch of the *median*, which is formed by the two lower cervical and the first dorsal nerves; and is the largest of the *brachial plexus*, which latter supplies two or three filaments to the *phrenic* or *internal respiratory nerve*, and sends numerous branches to the external muscles of respiration, to the pectoral and deltoid muscles, and indeed to the whole external part of the chest and neck; and to the *serratus magnus*, a large branch is sent, called by C. Bell, the *external respiratory nerve*, which is also connected by a filament with the *phrenic.*

It appears that when the wound was first inflicted, a *sensation of numbness* was felt running up the arm to the axilla and shoulder, and immediately afterwards the *same feeling was experienced in the fingers of the other hand;* as no mention is made of spasms or convulsions, it is inferred that none were manifested, except *subsultus*, which occurred at a later period of the disease.

This, so far as our reading and observation extend, is a rare phenomenon, and one well worthy of consideration. According to *Marshall Hall's* doctrine of the reflex function of nerves, which supposes that a nerve is compounded of sentient and excitor filaments, and has probably two origins, one in the cerebrum, the other in the medulla spinalis, so powerful a stimulus applied to an incident or sentient nerve, ought to have excited *contraction* instead of *pain* in other remote parts of the muscular system. How are the phenomena of this case to be reconciled with the doctrine of the reflex function, as explained by Mr. Hall?

Again *Muller* observes, that "*the sensation produced by irritation of a branch of a nerve, is confined to the parts to which that branch is distributed, and generally, at least, does not affect the branches which come off from the nerve higher up, or from the same plexus.*" In this case, however, we find a similar sensation experienced by the corresponding nerve distributed to the opposite side of the body; and not only this, but painful sensations in the region of the axillary plexus, and the parts which it supplies with nervous influence; and also distressing sensations in the epigastric region, which would seem to indicate irritation of the cœliac plexus and other portions of the ganglionic system of nerves. And yet Muller states that irritation is felt "*only in the spot where the irritant is applied, and that it never reacts upon the brachial plexus, and on the other nerves which arise from it.*" One clear case, like the above, in contradiction of a statement like this, is as valid in physiology as a thousand. Sensation, we know, is generally transmitted from the periphery to the centre, from the surface of the body to the source of all sensation, the brain. In addition to this, we here find *sensation transmitted from the brain* to the extremities, as well as to the vital organs of the thoracic and abdominal cavities. Examples of radiated sensations, in *the same limb*, or region of the body, are not uncommon, as the extension of the pain of tooth-ache over the whole face, of pain in one finger to the hand, arm, and other fingers. In the London Medical Gazette for 1834, a case is related where, after amputation of the thigh, a swelling formed in the ischiatic nerve at its extremity, where it was also firmly united to the cicatrix and bone; after a short time the skin of the entire stump, and sometimes even *distant parts*, as the integuments of the abdomen, became affected with severe pain, without any inflammatory symptoms; but the trunk being amputated at a higher point, the pains did not return. *Muller* states that these sympathetic sensations do not occur *in health*, because of the isolation of the nervous fibres in their course to the brain; but there is no more isolation in *health* than there is in *disease.*

The following case, which we find in Mr. *Swan's* "*Treatise on Diseases and Injuries of the Nerves*," has many and close points of resemblance with the one reported by Dr. Ticknor. Mrs. E., aged 40, received a *cut* on the inside of the first phalanx of the left thumb. Immediately after the accident she felt a numbness in the arm, and a sense of fulness, as if the skin would burst; these sensations continued for a fortnight, and the wound healed very well. At the end of this time, violent pain came on, when a tremulous motion could be seen in the part which it occupied. The pain was termed startings or spasms, by the patient, and was felt in different ways, but the muscles were not affected. *These* spasms were felt all over the body, though they were by far the most frequent in the upper half of it. She frequently felt a great heat in the chest and abdomen, but most particularly in the latter, and the same startings as in other parts of the body. *The sensations were sometimes as if the flesh was pinched with hot irons:* sometimes a great heat, as if hot water was poured down her back; sometimes she had frequent shakings of the whole body, which were unattended with pain, and were most relieved by drinking hot water. The spasms were not confined to the left arm, but she had them at the same time in the right, and *frequently in the right when she had none in the left.* The fore finger was as painful as the thumb, and if anything touched either of them the spasms were produced, which continued many days. She had a good appetite, her bowels were confined and her tongue furred, but she had no thirst.

Sedatives and antispasmodics seemed to do her most good, though nothing was productive of much benefit. At the end of six months the spasms were less frequent, but were reproduced if the thumb or fore finger was moved or touched. Succeeding years brought each some mitigation of her sufferings, but even after seven had elapsed, extreme susceptibility of any impression still remained in the thumb, and the forefinger had not recovered its natural condition. Lifting a weight, or using the right arm much, always produced sensations as if needles were running into it, and attempting to use the fingers of the left hand, as in knitting, produced giddiness. She continued to be affected with spasms in every part of her body till her death, which happened nine years and six months after the occurrence of the accident, when she seemed to die worn out.

The following are examples of a similar kind. Dr Wollaston states (Sir B. Brodie on Nervous Affections), that he ate some ice-cream after dinner, which his stomach seemed to be incapable of digesting. Some time afterwards, when he had left the dinner table to go to the drawing-room, he found himself lame *from a violent pain in one ankle.* Suddenly, he became sick; the ice-cream was rejected from the stomach, and this was followed by an instantaneous relief of the pain in the foot.

"A gentleman consulted me," says Sir Benjamin Brodie, "concerning a pain in one instep. The pain was severe, causing lameness, so that he walked with difficulty: but there was neither swelling, nor, except the pain, any mark of inflammation. I prescribed some remedies, which, however, were of no avail. One morning he called on me, still suffering from the pain in the foot, and so lame that he could not get out of his carriage and walk into the house without the assistance of his servant. Now, however, he complained of another symptom, he had a difficulty of making his water, and a purulent discharge from the urethra. He had labored under a stricture of the urethra for many years, and had occasionally used bougies. Of late, the stricture had caused more inconvenience than usual; but he had abstained from mentioning it, thinking it would be better that he should (if possible) be relieved of pain in the foot before any treatment was adopted on account of the stricture. Under these circumstances, I introduced a bougie, which penetrated the stricture, and entered the bladder. Immediately on the bougie having been used, the pain in the foot abated; and in less than a quarter of an hour he left the house free from pain, and walking without the slightest difficulty! This happened some years ago, but I have seen the patient at intervals ever since; and from a most careful observation of his case, he and I are both satisfied that the pain in the foot is connected with the disease in the urethra, and we have never found anything to relieve it except the introduction of the bougie."

The following may also, perhaps, be regarded as cases illustrating the tortuous or anomalous route sometimes pursued by sensation: as when pain is felt in the testicle, from the passage of a calculus along the ureter from the kidney into the bladder, on the same side; or pain on the outside of the hip, from inflammation of the testicle. The former may perhaps be explained, by the circumstance that many of the nerves of the testicle derive their origin from the *renal plexus*, which also supplies the kidney, and which is formed by branches of the great sympathetic nerve. Now the calculus operates, in the first instance, on the nerves of the kidney, by which its influence is transmitted to the renal plexus, and thence *reflected* to the nerves of the testicle.

In the latter case, the nerves which supply the scrotum and cord have the same origin, viz.: the *lumbar plexus*, as the cutaneous nerves of the outside of the hip. The irritation of the former is thus communicated to the latter and referred to the parts to which they are distributed,—attacks of gout in the foot from the presence of acid or other irritating matters in the stomach, are also examples to prove that irritation in one part of the body may cause pain in another and remote part.

Instances are common enough where irritation at one extremity of a nerve is felt at the other, or at its origin: as when pain is experienced in the back, from injecting port wine, &c., into the *tunica vaginalis testis*, head-ache from irritating matters in the stomach (which is instantly relieved by an emetic).

Now, how are we to explain these facts from recognized physiological laws? Is an impression conveyed to the sensorium by one nerve, and transmitted by it to another nerve? Is it possible to determine, in particular cases, *why* a particular route is taken by sensation? Is it, in short, reflex action from the brain or spinal cord, at all? *Muller* has asked, whether a current, in such cases, passes from the cerebral or spinal extremity of the nerve in a retrograde course, to its peripheral extremity; or, if there is no current, but merely oscillation of a nervous principle? whether the impression conveyed to the brain by the nerve primarily excited, gives rise to a reflex oscillation in another nerve, from its cerebral to its peripheral extremity? It seems altogether improbable to us that either currents or oscillations are propagated in a retrograde direction from the brain; nor is it necessary, in explaining the phenomena in question, to suppose the existence of any such law, or mode of action; it is more rational, and certainly more philosophical, to suppose that the irritation is transmitted to the origin of the nerve, in the brain or spinal cord, which supplies the part affected, and *there* affects the *origin* of other nerves, going to other parts, and thus giving rise to sympathetic sensations in those parts to which such nerves are distributed. As when a limb has been amputated, sensations are apparently felt in the limb that has been removed; and, in epilepsy, an *aura* is experienced in the lower extremities, although we know that the cause and true seat are not in those parts, but in the spinal marrow or brain; being, in fact, nothing more than the first symptoms of the affection of the spinal marrow and brain, which show themselves during the attack.

In affections of the spinal cord, moreover, the sensations are felt in the peripheral parts of the body, as, in inflammation of the cord, we feel violent pains in the limbs. In this manner, we apprehend, are sensations sometimes radiated to different and remote parts of the body.

In the case of Mrs. A., the function of *respiration* and *circulation* was seriously affected, and that *immediately* upon the infliction of the wound. Our first inference from this fact is, the phenomena were manifestly the result of *irritation*, and not *inflammation*, as sufficient time had not elapsed for the processes of the latter to have been instituted. Hence, the opinion of some, that all phenomena that arise in consequence of injuries to nerves are owing to inflammation, is erroneous, and should be abandoned.

The symptoms also indicate, that that portion of the spinal cord and medulla oblongata, that gives origin to, or is connected with, the par-vagum, sympathetic, phrenic, and other nerves that minister to the functions of organic life, was profoundly affected; and it is a remarkable fact, that an impression of so grave a character was chiefly confined to that portion of cerebral or medullary matter that is concerned in *sensation*, and did not involve the tract concerned in *motion*. The cold and moist surface shows a suspension of capillary circulation—a function well known to depend on the integrity of the nervous power. The sensation of "faintness" may perhaps be referred to the deranged function of the nerves which constitute the *cardiac* and *solar plexus*. The *sensation* of "rigor," or constant chilliness, is an attendant upon local irritation, under a great variety of forms—expressive of a sympathy of the circulating with the sensorial organ—of the heart with the brain. It may arise from *fear*, from *cold*, from *suppurative action*, from a *direct nervous impression*, as *syncope*, from the *prostrative character of severe irritation*, as a severe shock or blow; and in general, perhaps, it indicates returning animation and reaction. Another remarkable feature in this case, was *the formation of an extensive abscess* beneath the pectoral muscle. When we take into consideration the state of the system at the time, the low state of the circulation, and the imperfect manner in which all the vital functions were performed, we are certainly forced to the conclusion, that suppurative inflammation does not, at least, always indicate a high grade of arterial action, and that it may be sometimes combated most successfully by anodynes and tonics—remedies to allay irritation and support the integrity of the vital powers. The effect of the remedies will, also, clearly lead to the same conclusion. May we not hence derive a useful lesson? and, when we meet with local inflammation, with deteriorated condition of the general health, and symptoms of irritation present, in one or more organs, whether it be the brain, the stomach, or the urinary apparatus, instead of general or local bleeding, resort, with advantage, to a cordial, supporting plan of treatment?

Mr. *Travers*, in his excellent work on "Constitutional Irritation," has pointed out with great clearness, the distinguishing marks between inflammation and irritation, which the reader may profitably consult in connexion with this subject. This case proves very conclusively that if much may be said as to the "constitutional origin of local diseases," much may also be advanced upon the local origin of constitutional diseases.

Dr. T. has inquired whether there is not some analogy in this case with *poisoned wounds?* So much so, we would say, that had the same symptoms occurred from a dissection wound, few would have doubted that they were occasioned by the absorption of morbid matter. Mr. Lawrence thinks it very doubtful, whether "anything that can be called virulent or poisonous, is introduced into the human frame by dissection wounds," but imputes the effects to the mechanical injury inflicted. Such cases as the above would seem to lend considerable support to such an opinion. The instantaneous occurrence, however, of some of the gravest symptoms, may serve to distinguish such a case from one where poison has been absorbed, as, in the latter instance, some time would be required for the development of the disease. It depends, we believe, entirely on the state of the general health at the time, whether such accidents ever lead to any serious result; certainly in a very large majority of cases, no unpleasant symptoms whatever follow such wounds. During our apprenticeship in our younger years, as demonstrator of anatomy, we often met with these accidents in dissecting, but never experienced the slightest injurious effects, although we used little, if any precaution. In some instances, we believe the effects produced are such as would arise in wounds considered in themselves, without any reference to the absorption of morbid matter; in other cases it is more probable that a poison is introduced into the system, to which the subsequent phenomena are to be attributed. We here close our discourse, with many thanks to our friend who has furnished us with our *text*.

Art. IX.—*A Brief Notice of the Senecio Aureus.* Communicated to the Editor, by Dr. Graham, of Geneva, New York.

Senecio Aureus.—Class Syngenesia, Superflua. Life-root, Gravel-root, by the Indians Nun-quâ. This plant is found only in swamps and the vicinity of sluggish streams, growing in black muck, and may generally be looked for in the neighborhood of the Caltha palustris, which it somewhat resembles, the leaf being smaller and less succulent. Commonly but two leaves grow from the same root, on long petioles (6 to 12 inches), one leaf on each, serrate and ovate-cordate. In May, it sends up a purplish flower stalk from 18 to 24 inches high, the leaves of which are pinnatifid and toothed. The flowers are a bright yellow, resembling the Taraxacum, and generally three or four in a sort of umbel. The plant remains green all winter, and as the young leaves start up in the spring, the old ones decay. It has a small purplish horizontal root, lying near the surface, sending off minute radicles into the soft soil beneath. The whole plant is used, and is easily and rapidly gathered without digging, being pulled up, by clasping the horizontal portion.

Given in infusion it promotes perspiration, the secretion of urine—increases the force of the circulation, without producing any febrile tendency, and is particularly useful in those cases of anemia, attended with cold extremities, feeble circulation and inability to endure muscular exertion. In dysmenorrhea, a cupful of the warm infusion frequently gives entire relief, abating the pain and procuring a free flow of the catamenial secretion. It is highly useful in all cases, where a diaphoretic and diuretic agent is required, and more especially if the case may be attended with spasm of the urinary or uterine systems. It seems to exert an antispasmodic influence over the capillary vessels, when the circulation is languid, enabling them to relieve themselves of accumulations of venous blood, imparting energy and power to the whole circulatory apparatus.

[The above plant has acquired considerable reputation in Central and Western New York, as a domestic remedy, and as it is not mentioned in any of our works on Materia Medica, a brief notice of it we hope will not prove unacceptable to our readers.]

ART. X.—*Observations on Rheumatism.* By H. T. JUDSON, M.D., of New York.

As it has fallen to my lot to treat a considerable number of cases of rheumatism in the course of private practice, I have thought the results of my experience might not be uninteresting or useless to the profession.

It is not necessary to detail particularly the symptoms of either acute or chronic rheumatism, as they are sufficiently well known and not easily mistaken for those of any other disease. The most remarkable characteristic of acute rheumatism is the tendency of the inflammation to change its place. It shifts from joint to joint, apparently in the most capricious manner. Yet I think I have observed that it tends from the centre towards the circumference in the lower extremities, while it follows an inverse order in the superior extremities; that is to say, the hips are usually affected before the knees, and these before the ankles; but the wrists take precedence of the elbows, and the elbows of the shoulders. The pulse is one hundred, and sometimes a little more, in the minute, full, round, and hard. We find a white tongue and the usual symptoms of an inflammatory fever.

The prognosis is generally favorable so far as life is concerned, for it is a fact that no fever is so seldom fatal as rheumatic fever; but how long the disease will continue, or how frequently the patient may relapse, it is impossible to predict. It is one of the most painful and vexatious inflictions to which humanity is subjected. When several joints and the muscles moving them are simultaneously affected, the sufferings are very severe and the pains excruciating. The sufferer cannot bear to be moved, or scarcely touched. Even in its subdued form it is still very painful, and is not easily or patiently endured. The physicians of England tell us it often terminates in fatal disease of the heart; I have not been so unfortunate as to meet with such a case. I have known the same patient suffer nine or ten attacks in the course of twenty years, and survive them all and enjoy good health. The convalescence is frequently tedious and protracted: sometimes, however, the cure is rapid and permanent.

There have been various plans of treatment proposed and followed, such as the depleting, the narcotic, the tonic, and the stimulating; of which I shall now take some notice and briefly indicate my preferences.

Blood-letting is always the first remedy suggested. When carried to an extent sufficient to subdue the disease, it leaves the patient in a state of great prostration, and dooms him to a slow convalescence. It seems to have more control over the accompanying fever than over the local pain and swelling. On the whole, I am not in favor of excessive bleeding in rheumatism, and in many cases never use the lancet at all. I choose to commence the treatment by giving a full dose of calomel, say fifteen grains, followed by infusion of senna, or a dose of magnesia and rhubarb; then I give tartar emetic in small doses, and warm drinks to promote diaphoresis, and a pill of opium, two grains, or a teaspoonful of laudanum at night. Opiates I consider indispensable from the commencement to the termination of the disease. The employment of calomel and opium in small doses I have seldom found to have any beneficial effects. Thus exhibited, calomel is tolerated, rheumatic patients not being easily salivated; but the disease is not relieved. Opium in substance, or laudanum or the salts of morphine, in full doses, are always useful. To give temporary ease and to procure sleep are very desirable, and this composure tends to the resolution of the disease. This is all I have to say concerning the depleting and the soothing plans of treatment.

Respecting the tonic plan so warmly advocated by Dr. Haygarth in the last century, and lately revived in England, and in this country, I have no favorable report to make. The quinine has always aggravated the pain, and rendered the pulse fuller and harder. The late Dr. Bushe told me he had cured a case of acute rheumatism in three days, by the exhibition of quinine in doses of five grains, combined with the same quantity of rhubarb three times a day; having a very severe and protracted case on hand at the time, I tried his plan four days, but without his success, and was obliged to relinquish all hopes of benefiting my patient in this way. I should think such a method applicable to those cases only which have their origin in marshy districts, and which are allied to intermittent fever.

Much has been said in favor of the tincture of colchicum in the treatment of gouty and rheumatic affections, and certainly I have found no single remedy so efficacious in relieving the severe pains, and in subduing the inflammatory symptoms in this disease. I think the best way is to combine the tincture of colchicum with equal parts of the tincture of aconite, and give a tea-spoonful of the mixture three times a day, and a tea-spoonful of laudanum at bed-time. This is an effective and satisfactory method of treatment.

I am of the opinion that the guaiacum is better adapted to the chronic than to the inflammatory form of rheumatism. I use the following formula: ℞ pulv. g. guaiac ℥ss. pulv. g. arabic, simple syrup āā. ℥ij. aqua cinam. aqua font, āā. ℥iv. M. Dose one ounce thrice daily. This is the only admissible form of stimulating treatment.

The last plan of treatment I shall speak of, is the free use of nitre. A scruple of nit. potass., and half a grain of antimony tart., given in powder every four hours, often procures great relief, and generally speaking, is an admirable way of combating this vexatious disease. The last case I had, I treated by giving, in the first place, fifteen grains of calomel, followed by a solution of half an ounce of nitre in a pint of lemonade, to be taken in the course of twenty-four hours, with a large dose of laudanum in the evening, and sufficient of the tincture of colchicum to keep the bowels free and open. The patient was much relieved in a week, and had a good convalescence. This patient is now nearly sixty years old, and has been subject to attacks of acute rheumatism since her second year. She cannot tell exactly how many times she has had the disease. Previous to coming under my care she has had it continue seven weeks, so that she could not move herself in bed. It ought to be stated here that the first attacks of acute rheumatism are generally the most severe and protracted. In the chronic form the reverse is true. I can suggest no better plan than the treatment above mentioned, for as to curing rheumatism in a day or two, or in one afternoon, as a Homeopathist once told me he had done, altogether exceeds my skill, not to say belief. I have never been so fortunate as to find any charms in the practice of medicine.

I have not much to say with regard to external applications. Blisters cause the local inflammation to change its place, driving it from one joint to another, but do not free the system from it. An embrocation of spirits of turpentine and spirits of camphor is generally useful in chronic rheumatism, and in the acute form, when somewhat subdued, is not injurious. The most efficient external means I have employed, is the tincture of aconite in the quantity of a teaspoonful rubbed on the painful parts. In neuralgia and in painful affections of the skin this gives immediate ease, and I have much confidence in it. The diet in acute rheumatism should be restricted. It is well to envelope the limbs in cotton batts, and to keep the patient as still and quiet as possible.

PART SECOND.

Critical Analysis.

ART. XI.—*Rural Economy in its relations with Chemistry, Physics and Meteorology, or Chemistry applied to Agriculture.* By J. B. BOUSSINGAULT, Member of the Institute of France. Translated with an Introduction and Notes, by George Low, Agriculturist. N. York: D. Appleton & Co. 1845. 12mo., pp. 507.

RURAL ECONOMY has peculiar claims on the attention of medical men, especially those who live in the country, as its study will be found not less interesting than profitable. The late Dr. Rush, in one of his valedictory lectures to his class, recommends those who intend to practise medicine in the country, to settle upon farms and devote a portion of their time to the cultivation of the soil as conducive to health, by furnishing employment during the healthy seasons of the year: affording an opportunity of making improvements in agriculture, by experimenting upon the nature of soils, manures, &c.; creating such an independence as will enable the physician to live without practice, or at least, to practise with more dignity; to collect in stock and labor of all kinds, debts which could not conveniently be paid in money; and lastly, preventing the practitioner from "cherishing an impious wish for the prevalence of sickness in his neighborhood;" a healthy season enabling him to add to the produce of his farm, while the rewards of an unhealthy season enable him to repair the inconvenience of a necessary absence from it.

In the present multiplication of medical men, Dr. Rush, were he now living, would find an additional reason for directing their attention to agricultural pursuits. To them, the cultivation of agricultural science is a duty, for it is a branch of physiology, and physiology belongs to medicine: it is a department of organic chemistry; and this constitutes one of the important pillars of medical science. Physicians have always been foremost in extending the bounds of useful science, and to them, more than to all other classes, does society look for its future advancement. To them it is principally owing, that agriculture has advanced from an *art* to a *science;* to them are mankind chiefly indebted for the blessings and benefits which have resulted from its scientific cultivation. Regarding agriculture as constituting the true foundation of all trade and industry, and hence the source of all national wealth; that it is based on scientific principles (whether we are acquainted with them or not), on a knowledge of vegetable chemistry, which teaches the manner of investigating the composition and studying the characters of the different substances from which plants derive their nourishment, it belongs, indeed, to the members of our profession to cultivate this science, as a province of their own natural domain,—as a field in which noble trophies are to be won—a department fertile in interest, and inexhaustible in riches.

In the person of the author of the present work, we find a model worthy of imitation, for in him we see the man of science happily associated with the practical farmer,—the accomplished naturalist, the profound chemist, and natural philosopher. The friend and fellow-laborer of Arago, Biot, Dumas, and all the leading minds of his age and country, M. Boussingault's title to consideration is recognized wherever letters and civilisation have extended their influence.

In the first part of the present work, the author treats in succession of the physical and chemical phenomena of vegetation; of the composition of vegetables and their immediate principles; of fermentation and soils. The second part comprises a summary of all that has yet been done on the subject of manures organic and mineral; a discussion of the subject of rotations; general views of the maintenance and economy of live-stock; and finally, some considerations on meteorology and climate, and on the relations between organized beings and the atmosphere. If any one portion of the work is of more value than another, it is perhaps the chemical part, which is written with consummate skill and knowledge; and with a minuteness and accuracy deserving of all praise, and what is of importance to many readers, the results of the writer's researches, as well as the means and processes by which these results were obtained, are displayed with such perspicuity as to be intelligible and instructive to every agricultural inquirer, however superficial his previous acquaintance may be with the details of chemical science. The author's elucidation of vegetable physiology is at once masterly and complete, and contains much that is both valuable and new. In short, we regard the work as the best text-book and manual on the subject of chemistry applied to agriculture, or "Rural Economy," in all its departments that has ever been presented to the public.

Art. XII.—*A Practical Treatise on Laryngeal Phthisis, Chronic Laryngitis and Diseases of the Voice.* By A. Trousseau, and H. Belloc, M.D. Philadelphia. Carey and Hart, 8vo., pp. 186.

Among the proceedings of the New York Medical and Surgical Society, will be found some interesting papers, by Drs. I. E. Taylor and Horace Green, on the subject of local applications in diseases of the larynx. We have thought that in order to present the whole subject fairly before the reader, it would be advisable to notice the original work of MM. Trousseau and Belloc, to whom the profession is indebted for the introduction of this novel mode of treatment, in laryngeal affections. The practice of cauterizing the larynx has now been pursued in this city, since 1839, and was, we believe, introduced by Dr. Horace Green, who states that when he first resorted to it, he was not aware that it had been previously practised in Paris, nor was he acquainted with the present work, which was published in 1837, and re-published in English, in this country, in 1841.

The prize of the French Academy of Medicine, it appears, was awarded to MM. T. and B., for their discovery of the fact that the lining membrane of the larynx is not only accessible to topical applications, but that its diseases may be thus successfully treated, in the same manner as conjunctivitis, diseases of the pharynx, or of the skin itself, but that such treatment is, in many cases, better than any hitherto employed.

They first give a definition and history of LARYNGEAL PHTHISIS, going back to the times of Hippocrates, and coming down to the works of Louis and Andral. They then describe with much particularity the organic alterations, first of the mucous membrane, and second of the cartilages of the larynx, and illustrate their remarks by several very interesting cases. They next discuss the question, whether *laryngeal* ought to be separated from *tracheal phthisis;* but as both forms of the disease arise from the same circumstances, and from the same predisposing and exciting causes, and moreover, when symptomatic, both originate from the same diseases, and are often co-existent in the same patient and occur simultaneously in the same organs, although they do not consider it useless to distinguish the seat or place of the lesion, they do not think it of sufficient importance to make two distinct affections, especially as the anatomical lesion is the same, and the treatment almost precisely similar.

Among the *causes* of laryngeal phthisis, are enumerated acute laryngeal angina tracheotomy, practised for croup; frequent and strong cries; habitual exercise of the voice; immoderate luxury; masturbation; periodical exanthemata; cancer; tumors in the larynx; syphilis; phthisis pulmonalis, &c. Those constitutions which are most prone to develope chronic diseases, and particularly the scrofulous and tuberculous constitutions, powerfully predispose to the disease. Next follow several cases, illustrating these particular causes. Among the exciting causes, may be reckoned acute affections of the larynx; forced exercise of the voice; frequently renewed colds; repression of *dartrous* affections; blows; falls; wounds; chills; foreign bodies, &c.

Our authors next point out the different species of laryngeal phthisis, of which they make four kinds, viz. 1. *Simple laryngeal phthisis.* 2. *Syphilitic;* 3. *Cancerous;* 4. *Tubercular laryngeal phthisis;* of each of which, several interesting examples are given.

An account of the *symptoms* is next in order, which are first described in a general manner, and then the forms and peculiarities of each species of laryngeal phthisis are pointed out, as well as the relations that exist between especial lesions of the larynx, and particular series of symptoms; as these are highly important, we shall quote them at length.

"*General symptoms of laryngeal phthisis.*—During the first period of the disease, local symptoms alone claim the physician's attention. The general symptoms are rarely developed, except when acute diseases of the larynx give rise to laryngeal phthisis, or when that assumes a threatening aspect. It is, therefore, the local symptoms that should first attract our whole attention.

"A. *Alteration in the quality (timbre) of the voice.*—This is one of the first symptoms that attract attention. At first, it is often a simple want of power; oftener a decided hoarseness. Sometimes continual, at others, recurring only when the larynx has been fatigued, or when the patients have been exposed to a change of temperature.

"It is an important fact, that the transition to a colder atmosphere is less prejudicial than the change from cold to warm. This singular result has been repeatedly observed in our patients, and we confess we have been much surprised at it. The voice, also, becomes hoarser, in proportion to the time the patient has been up, so that, on the morning visit, when the patient has just awoke, we have observed the voice much clearer than in the evening. This is probably owing to the larynx having gained some repose during sleep, and becoming fatigued during the day.

"Another observation, which seems to have escaped writers, is, that if there be a good appetite for food, the hoarseness is generally very decided, and that it disappears more or less completely after the meal, but soon returns to the same point as before.

"It is not a useless exercise to examine into these minor details, because we may be often deceived in our diagnosis of the state of the larynx, if we are ignorant of these singular changes, and of the causes which produce them.

"The menstrual period, also, affects the hoarseness, which is generally greatest at the approach, or passing off of this discharge. Venereal indulgence, also, increases it considerably.

"The hoarseness is intermittent in the first stage, but soon becomes continual, and may remain so until the close of the disease, though extinction of the voice often supervenes in the second stage.

"It is difficult to describe the approach and symptoms of the hoarseness; though a practical ear recognizes some sounds which correspond to peculiar forms of alterations in the larynx. Thus. there are some kinds which convey to the ear a mucous and broken sound, but which show that the column of air has not a free passage; this is what we have called the *mucous* hoarseness: it is heard in simple catarrhs, and when constant, commonly only indicates catarrhal inflammation.

"In other cases, the voice is hoarse, uneven, and rough; this we call *stridulous:* it is a bad symptom, as it almost always corresponds to an ulceration, or to vegetations in the larynx.

The aphonia, by which we mean the complete loss of the faculty of speech, comes on in the second stage of the disease, and is a serious symptom, but subordinate to many conditions which modify it.

"The aphonia, which comes on suddenly, with an acute disease of the larynx, and continues when the disease has passed into the chronic form, is not nearly so alarming as that which advances progressively.

"That which succeeds the *mucous* hoarseness is not so bad as that which follows the *stridulous*, for obvious reasons.

"In some patients, the aphonia presents curious varieties. The voice may be completely extinguished in the evening, and merely hoarse in the morning, at the moment when the patient gets up, and immediately after eating. This form may indicate a superficial organic lesion, or simply a catarrhal affection.

"The inequality of the voice is a more common phenomenon in laryngeal phthisis than has been commonly supposed, or than the patients themselves believe. When the larynx is diseased, the volume of sound is instinctively diminished, and the emission of air is generally proportioned to the intensity of phonation. But, patients who, in spite of the alteration, wish to give the original force to their voice, find that the want of calibre and strength of the vocal instrument gives rise to unexpected and discordant sounds. We have often noticed this in singers and advocates. Colonel B., who enjoyed a high reputation in the army, furnishes a remarkable instance.

"He had a chronic affection of the larynx of two years' standing. In ordinary conversation, his voice offered the *stridulous* hoarseness in a slight degree, but it was perfectly even, and, except its force, it was easily modified for animated discourse. But, when he commanded his regiment, there were such uneven and singular bursts, that nothing short of the greatest respect prevented the officers and soldiers from laughing. The finals, for which the vocal tube had to be largely opened, could not be pronounced without change; thus, the word *lance* was never uttered without the sound being converted into a broken cry.

"This has some similarity to what is often observed in youth at the age of puberty; differing in this, that the latter are not hoarse, but have two different *timbres*, and a discordance of the voice.

"B. *Cough.*—Does not differ from that observed in most diseases of the thorax: it is generally frequent, and by spells. The sound always corresponds to that of the voice. When there is aphonia, or the *stridulous hoarseness*, it has a peculiar sound, which it is important to have well described.

"We have called it *eructant*, because, when the patient coughs, he seems to make a suppressed eructation. This character is always diagnostic of a serious alteration of the larynx.

"In a common cough, we may observe that the air is expelled by the action of the diaphragm and expiratory muscles, while it is retained, on the contrary, by the contraction of the glottis; the expulsory effort finally overcomes the resistance, and drives the air through the larynx with a sound which we call 'cough.'

"Now, when the sound, instead of being clear and short, is prolonged and *gulping*, it is because the glottis is unable to move freely, or because deep ulcerations prevent it from closing; which explains why the eructant cough is so bad a symptom.

"The difference in frequency is altogether inexplicable. Some are tormented by an incessant cough, so obstinate that they cannot enjoy a moment's rest, and their food is rejected by the contraction of the expiratory muscles; others, whose autopsy presents the same lesions, have scarcely coughed, and succumbed only under the increasing swelling of the mucous membrane of the larynx, and the consequent asphyxia. The cough is generally calmed by food and drinks during the first stage; but, in the second, aliments pass partially into the larynx, and cause convulsive fits of cough, which nothing will relieve. The frequency of the cough is not nearly so unfavorable a symptom as its hoarseness, and the change in the volume of the voice. Some persons have an obstinate cough for years, while their lungs remain free, and there is no alteration in the larynx: one of our patients, Baron Trêmont, is in this situation. He coughs in the most fatiguing manner; the most energetic medicines afford him no relief; but his voice remains clear, and nothing indicates tubercles of the lungs, or ulceration of the larynx.

"C. *Signs furnished by the expectoration.*—The expectoration in simple laryngeal phthisis furnishes negative rather than positive signs. It is commonly purely mucous, transparent, and not very tenacious; sometimes very abundant, and a simple mucous secretion (*phlegmorrhagie*); sometimes less copious, when the matter is more thickened.

"When there is an ulceration, the expectoration, without losing the characters already described, offers some peculiarities. Little puriform masses, often mixed with streaks of blood, and even quite bloody, are expectorated, without effort, rather by an attempt to clear the throat than by a cough. We shall hereafter see the diagnostic value of the abundance of puriform expectoration.

"D. *Pain.*—In more than half the cases of laryngeal phthisis there is no pain from the beginning to the end of the attack. It is even remarkable, that they who complained a little at the commencement of the disease, when the phlegmasia was acute, did not suffer at all when the mucous membrane and the cartilages of the larynx were nearly destroyed by ulceration or necrosis.

"In a few, there is some pain in the larynx, especially at the origin of the trachea; it is rather a sensation of smarting, which we have never found very distressing to the patients. On the contrary, almost all suffer acutely when they swallow, and patients tell us they feel no pain in speaking or breathing, but when they swallow, and therefore their disease must be in the pharynx only. An examination of the pharynx shows nothing which could explain the symptoms; and if we have an opportunity of making autopsic examinations of the organs of voice, we find considerable organic alterations. How, then, shall we explain this want of correspondence between the anatomical lesions and the symptoms? We think it may be easily done. What parts of the larynx are ordinarily most affected? By turning to the chapter on pathological anatomy, it will be seen that, in ulceration, caries, or necrosis, the mucous membrane, which covers the epiglottis, the aryteno-epiglottidean ligaments, and the arytenoid cartilages, is almost always the seat of inflammatory engorgement. Now, this forms the anterior part of the pharynx, and no effort of deglutition can be made without the mass of food being pressed against these inflamed, and often ulcerated tissues.

"When, on the contrary, the front part of the larynx is touched through the skin, the inflamed mucous membrane is protected by the hyoid bone and thyroid cartilage, and, consequently, does not receive impressions of pain, unless we indent the cartilages, or move them considerably: add to this the fact, that the membrane at the upper opening of the larynx is endued with extreme sensibility, while that lining the organ has very little:—we have satisfied ourselves of this by experiments made when we have been obliged to perform tracheotomy.

"E. *Signs obtained by inspection.*—By opening the patient's mouth widely, and depressing the tongue with the handle of a crooked spoon, so as to bring the base of the organ well forward, the veil of the palate, the uvula, the tonsils, and the bottom of the pharynx are brought into view. It is important to ascertain the condition of these parts, especially when we have syphilitic laryngeal phthisis. The state of the uvula, also, deserves especial attention, because the procidence of this organ may sometimes cause serious inflammatory symptoms in the larynx.

"But the exploration of the epiglottis is of extreme importance, as we have before remarked: although this organ belongs to the tongue, its pathological relations require it to be considered as an appendix to the larynx. Pathological anatomy shows us, indeed, that the larynx is rarely much diseased, without the epiglottis participating in the affection.

"But there are few patients in whom we can see the epiglottis: we have met but two, in whom the throat and the tongue were so formed that we could see the whole of its upper surface. By making the patient utter a cry during the examination, the epiglottis may be seen starting forward at every expiration. In these two patients, whose disease was not far advanced, the mucous membrane was of a cherry red, and decidedly thickened. It may be inferred that the aryteno-epiglottic ligaments and the lining of the larynx were in the same condition.

"It would, doubtless, be very important to be enabled to examine the larynx by means analogous to those furnished by the speculum. Some years ago we endeavored to construct a *speculum laryngis.* M. Selligue, a very ingenious mechanic, himself a sufferer from laryngeal phthisis, of which he has been completely cured, constructed for his attending physician, a speculum formed of two tubes, one of which conveyed light to the part, while the other returned the image of the glottis, reflected in a mirror at the guttural extremity of the instrument. M. Sanson, cutler, made us a speculum on the principle of that just described. This instrument is of difficult application, and there is not one patient in ten who can bear its introduction. Indeed, its volume fills the space comprised between the free border of the veil of the palate and the upper surface of the tongue. When placed in the mouth, it provokes such uncontrollable starts (*sauts de corps*), that it is necessary to remove it immediately: if it touch the bottom of the gullet, which is almost sure to happen, the pharynx contracts convulsively, and with such energy as to force the instrument into the mouth.

"In the most favorable case, when the instrument can be retained in the isthmus of the gullet, the inevitable construction of the pharynx still prevents our seeing the deeply-seated parts.

"There is another difficulty, which is enough in itself to prevent our using this instrument. The epiglottis covers the upper part of the larynx so completely as to prevent the possibility of obtaining a reflection of the parts in a mirror; and further, the light introduced by the instrument must fall upon the upper or lingual face of the epiglottis, and, consequently, casts its shadow precisely on the larynx, and thus hides it from our view. Bennati was, therefore, mistaken, when he pretended to have seen the glottis with the speculum of Selligue; he generally saw only the lingual surface of the epiglottis, and very rarely the superior opening of the larynx, and that only when the accidental elevation of the epiglottis permitted.

"The glottis is so deeply and peculiarly situated that it is impossible to explore it with the speculum even in the dead subject, much less upon the living, especially when we consider the convulsive effort that attends its introduction, even in those who have been most habituated to it.

"We have never observed swelling of the anterior region of the neck in simple laryngeal phthisis; this is owing to the mucous membrane being separated from the subcutaneous cellular tissue by the whole thickness of the cartilages. It is remarkable that even when there is considerable necrosis or caries of the cartilages, there is seldom any external tumefaction which would lead us to suspect such serious disorders.

"We have only once seen a tumor point between the cricoid and thyroid cartilages; this was almost insensible at first, but coincided with decided laryngeal phthisis. It was necessary to perform tracheotomy to prevent asphyxia, and we afterwards saw the tumor developed as an enormous cancer. Obs. XVIII.

"F. *Signs obtained by touch.*—In pressing the larynx a crepitation may sometimes be perceived, which has been mentioned by some authors, especially by M. Laignelet, as a sign of laryngeal phthisis.

"This sign at first deceived us, thinking it was produced by the rubbing of the necrosed portions against one another. But experience has taught us that it is most frequently found when the larynx is perfectly healthy; hence it loses its value as a diagnostic. Still it should not be neglected, but we must pay great attention to distinguish whether the crepitation be produced by the friction of the cartilages against the vertebral column, or whether it result from the grating of portions of cartilage that have been separated from each other by caries or necrosis. In the latter case the noise would probably be drier, and might be produced by squeezing the larynx; while in the former, it is never hard, except when the whole organ is moved. We confess we have never distinctly heard the crepitation resulting from the pathological state of the larynx.

"As for touching by the mouth, which is advised in almost all works on œdematous laryngeal angina, we may observe, that the exploration of the glottis is physically impossible, as the finger cannot be introduced into the larynx. The examination must be confined to the epiglottis and upper part of the larynx.

"But this exploration is attended with more difficulty than is supposed by those who theoretically recommend it without having practised it on many subjects. It is far from being so simple as touching the neck of the uterus; as soon as the finger has reached the base of the tongue and has merely touched the epiglottis, there is so energetic and general a spasm induced, that the finger can remain in contact but a second or two, so that we cannot thus obtain much information, and can only detect great ulcerations, such as vegetations or tumors. We cannot by this means ascertain the existence of ulceration in the aryteno-epiglottic ligaments;—at least, we have never been able to do it, although accustomed to this mode of examination.

"We read with astonishment what some authors tell us in their writings upon œdematous laryngeal angina; when they say it is very easy to recognize this serious disease by the touch. We esteem it a very difficult, if not impossible diagnostic means, for the reasons already stated.

"Touch is, therefore, rarely applicable in our diagnosis of diseases of the larynx.

"G. *Signs furnished by respiration.*—These are among the most important next to the signs furnished by the voice. In the first period of laryngeal phthisis, the respiration is not generally disturbed, except under peculiar circumstances, and when the patient takes violent exercise, in which case the inspiratory sound is a little braying; nothing of the kind is observed in expiration. If by chance in the course or at the commencement of the first period there should suddenly occur an increase of laryngeal inflammation, then symptoms of acute croup will be manifested; but this is an exceptional case, and in proportion to the progress of the disease will be the increase of oppression, which may be owing to two causes.

"If the disease of the larynx have induced consumption by the means we shall, explain, or if there exist simultaneously pulmonary tubercles,—a powerful cause of laryngeal phthisis, the patient will have shortness of breath and panting on the least exercise, and sometimes even when in a state of repose. In this case the oppression does not differ from that observed in the cases of debility and other forms of phthisis. But there is another important form of dyspnœa,—that which accompanies narrowing of the larynx. This has peculiar characters, and we shall endeavor to describe its form and course.

"When the disease has been of long standing, and the obstruction begins to attain considerable age, the patients who had suffered mere panting (*anhélation*) accompanying their debility, begin to experience what they call fits of asthma; at first, these occur in the latter part of the night, sometimes they are awakened four or five nights successively by paroxysms which increase in force. During the day they are better, but have an unusual difficulty of respiration, especially when they take violent exercise, or ascend a stair.

"After a while they cannot lie in bed, but remain seated and propped up with pillows. They have similar attacks during the day, and from this time the inspiration is hissing and respiration is prolonged and braying.

"In a few days, such violent paroxysms come on, that the sense of impending suffocation causes the patient the deepest anxiety; the fits pass off, leaving continued orthopnœa. More violent and more frequent paroxysms follow, until the patient finally perishes from suffocation.

"These fits are truly frightful; with livid face, open mouth, expanded nostrils, suffused and projecting eyes, and streaming with perspiration, the patient rapidly paces his chamber, and occasionally lays hold of objects that he may breathe more easily; sometimes the head is inclined upon the breast, but more frequently reversed; when, at last, overcome with fatigue, he sits down for an instant, soon gets up again. He tears all covering from his head, neck, and chest, and exposes himself eagerly to the cold air at the window, which he throws up with a sort of transport.

"Inspiration is hissing, short, and executed by the whole of the inspiratory muscles; but expiration, although less braying, is long, and as laborious as inspiration. Expiration is generally passive, but in these cases it is quite as active as inspiration.

"At last the patient falls into a profound depression; respiration is more frequent, shorter, and apparently easier; the breath is not warm; the whole body grows cold; the face changes from livid to pale, and is glossy; the eyes grow dim, and death occurs in a sort of calm.

"The time from the first fit of orthopnœa until death, is generally fifteen to twenty days; the fits begin to recur more than once a day about five days before death. To this, however, there are numerous exceptions. Sometimes a paroxysm occurs in the course of the disease, which proves almost immediately fatal. We will state two cases of this character; the first was noted by M. Marjolin and ourselves; the second by Morgagni."

Important signs are also furnished *by the mode of deglutition.* Besides *pain* in the act of deglutition already noticed, there is also an impossibility of swallowing liquids or food that is minutely divided, and cannot be formed into an alimentary bolus. Most authors attribute this phenomenon to the destruction of the epiglottis. MM. T. and B. maintain that the destruction of the epiglottis does not prevent some patients swallowing perfectly, while others, whose epiglottis is not affected, cannot execute any movement of deglutition without letting the food enter the larynx; of both of which examples are given.

We next have a description of the differences of symptoms according to the species of laryngeal phthisis. We have seen that the tone of the voice, the cough, the local swelling, the mode of respiration and deglutition, are precisely the same, whatever may be the species, because they depend upon an organic modification, common to all, namely, inflammation, ulceration, and narrowing of the larynx, but each species offers some peculiar symptoms. In *syphilitic* laryngeal phthisis, there is often very *acute pain,* especially in the act of deglutition, while in simple laryngeal phthisis there is generally very little. This is explained by the fact that in the former the pharynx and tonsils are generally covered with ulcers, or are deeply furrowed with cicatrices, the velum of the palate is also sometimes ulcerated. There is always considerable erythema of the mucous membrane in the syphilitic form of the disease, and more or less swelling of the submucous cellular tissue, and sometimes œdema of the uvula and palate. The previous history of the case and the *collateral* symptoms will generally enable us to form a correct diagnosis. It is worthy of note, however, that in simple laryngeal phthisis, the disease generally commences in the larynx or trachea, whilst in the syphilitic form it begins in the pharynx, or nasal tissue. In *tubercular laryngeal phthisis*, we have, of course, the signs of pulmonary consumption added to those of simple laryngeal, after tubercles are once developed, the laryngeal affection proceeds rapidly. "Indeed," say our authors, "in tuberculous patients we find the simplest phlegmasiæ have a fatal tendency to be aggravated and to take an unmanageable character. Thus the slightest sprain occasionally becomes the cause of a white swelling, and the mildest affection of the larynx may occasionally cause laryngeal phthisis. Hence when making our prognosis of the diseases of this organ, we should pay the closest attention to the slightest signs of pulmonary tuberculization, and not anticipate a cure when we can only palliate the disease temporarily." (p. 92.)

The symptoms of *cancerous laryngeal phthisis* do not differ essentially from those of simple laryngitis, there being an entire absence of those lancinating pains, so common when other structures are the seat of carcinomatous diseases. There are in fact but three diseases with which there is danger of confounding laryngeal phthisis, namely, *tracheal phthisis*, *œdematous laryngeal angina, and asthma.* The first two are regarded, as already stated, as not easily separable or distinguishable; *and œdematous laryngeal angina* is in nearly the same predicament. When acute it can only be confounded with *croup;* when chonic, which is most frequently the case, it is oftener one of the terminations of laryngeal phthisis, and therefore, merely a symptom of this affection. There is no danger of confounding laryngeal phthisis with that habitual difficulty of respiration which attends diseases of the heart and lungs, and which erroneously goes under the name of *asthma*, but it may possibly be mistaken for that singular nervous affection of the respiratory apparatus, characterized by paroxysms of orthopnœa, and followed by more or less calm in the respiration. There is, however, one important mark by which they are always to be distinguished; in *asthma*, *the voice is sonorous; in laryngeal phthisis*, *it is extinct;* however, the oppression of asthma comes on suddenly without warning, or appreciable cause; after a few hours, it ceases and leaves the patient with no other symptom than a little fatigue. While, on the contrary, in most cases of laryngeal phthisis, the orthopnœa comes on gradually, and has generally been introduced by a palpable difficulty of respiration, and by an alteration in the volume of the voice. When the paroxysm has ceased, the respiration is far from being clear, and the fits go on increasing in their intensity, until at last the patient reaches such a degree of asphyxia, that death is threatened or is duly averted by a surgical operation.

Our authors next take up the *terminations* of simple laryngeal phthisis and show that it is the hectic form, night sweats, abundance of expectoration, violence of the cough, want of sleep, and derangement of digestion that destroy the patient in this disease, dissection having pointed out nothing to explain these secondary symptoms but the alterations of the larynx. Contrary to what has been laid down by most writers on this subject, they state that they "have never seen a single case of chronic disease of the larynx which caused death by consumption," although they remark that "pulmonary phthisis is a very frequent termination of laryngical phthisis." We believe that death from simple laryngitis, without its extension to other organs, is comparatively rare, and yet we know that patients are sometimes worn out, by the harassing cough, difficulty of deglutition or even impossibility of swallowing food, without occasioning convulsive cough and suffocation, want of sleep, night sweats, &c. Under ordinary circumstances, the affection of the larynx, when not far advanced, and when unaccompanied by an obstinate cough, or fever, or oppression, scarcely ever causes emaciation, but when these symptoms occur, dyspnœa and emaciation progress rapidly, and the patient dies asphyxiated. Laryngeal is not only a frequent *cause* of pulmonary phthisis, but also the *effect* of the latter; it is even possible, as M. Louis has suggested, that ulceration of the trachea and larynx may be caused by the passage of pus, causing irritation of the lining membrane of the air passages. The conclusions to which our authors arrive are the following:

1st. That in most cases, tubercular pulmonary phthisis is first established, and that the larynx is afterwards affected.

2d. In some rare cases the tubercular lesion commences in the larynx, and only invades the lungs secondarily.

3d. That sometimes both exist and progress simultaneously.

4th. That in this case the lesion sometimes seems to exist exclusively in the larynx, because of the predominance of the laryngeal symptoms, and the difficulty of ascertaining the pulmonary lesion by stethoscopic signs.

Laryngeal phthisis may terminate in *cure*, provided it be treated properly at an early period, and before any considerable organic lesions have altered the tissues of the larynx and trachea; but if the disease be far advanced, and has debilitated the system by habitual dyspnœa, cough, and prolonged abstinence, and especially when signs of marasmus have begun to be developed, there is little hope left of saving the patient, although cases do occasionally occur, where recovery takes place, after the disease has been of long standing, and attended with extensive local ulcerations.

Treatment.—It is of the first importance in treating this, as all other acute affections, to attack the disease at as early a period as possible; and the measures are those which would be proper in a case of acute catarrh. *Rest* is absolutely indispensable; the organs of voice must not be exercised by speaking; or if the patient is allowed to speak, it must be in an under tone (*voix basse*). General blood-letting and emollients stand first on the list of active remedies, in subduing the affection, aided, however, by local bleeding and other adjuvants. Warm poultices and other similar applications to the throat are condemned on account of their provoking a considerable flow of blood towards the throat, and thus causing an aggravation of the symptoms. *Revulsions* are regarded as of equal if not more importance in treating laryngeal phthisis than bloodletting, as their effects are more permanent. Of these a seton to the *nucha* is perhaps generally preferable. Sometimes it may be placed with advantage, opposite the crico-thyroid space. The writers also recommend antimonial frictions and caustic potash; the latter to be applied once a week, on either side of the larynx and trachea, thus causing a purulent discharge. Revulsions are found to act most beneficially when applied *near* the diseased organ. *Opiates* are very important, as they serve to calm the pain and relieve the cough, both of which tend to aggravate the inflammation. External applications of a *narcotic* kind, as those of the extracts of belladonna, stramonium, and the salts of morphine, are very useful, and they should always be applied to a vesicated surface. The leaves of belladonna or the stramonium may also be smoked with benefit, especially after having been boiled in a solution of opium, and dried. We should suppose that opium smoking after the manner of the Chinese, would be the best method of applying an opiate to the part affected. We have found it in many cases the best mode of administering this article, especially where we wish to avoid the constipating effects of the drug, and to preserve the powers of the stomach in full digestive vigor. Sleep may thus be induced and pain relieved, without producing any unpleasant effects.

We now come to *topical applications*, which constitute the most important part of the work. We shall quote the remarks on this subject at length.

> " *Topical Medication.*—When a simple or ulcerative inflammation has become chronic, and occupies but a small point in the economy, it generally resists even the most thorough general treatment. On the contrary, topical medication or the direct application of medicines to the injured part, almost always modifies it. Thus the most obstinate ulcers of the throat, nose, eyes, skin, vagina, rectum, &c., &c., are generally controlled by topical applications made to their surface. These are either emollient, detergent, or irritating, and sometimes destroy the surface of the lesion. They are either pulverulent, liquid, gaseous, vapory, or solid.
>
> " The only difficulty consists in the anatomical relations of the parts, the action of the remedies being the same internally as externally.
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> " If then we can find a method of treating the larynx by topical remedies, as we do the canal of the urethra, we shall open a new therapeutic avenue to laryngeal affections, and render them curable.
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> " We do not deny that the functional importance of the organ opposes new difficulties, but we have been able to accommodate our applications to respiration, and have used some new remedies and obtained results to which we wish to call the reader's attention.
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> " This is the problem to be solved; *To ascertain a method of bringing medications in form of vapor, powder, or liquid, in contact with the mucous membrane of the larynx without interrupting respiration.* We think we have succeeded in effecting this object.
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> "*Inspirations of dry or moist vapor.*—Various fumigations have been prescribed for laryngeal phthisis and other affections of the respiratory organs. The most common were vapor of water, either pure, or impregnated with emollient, balsamic, or aromatic substances; sometimes dry vapors were used, as those of pitch, resin, henbane, tobacco, and poppy. Messrs. Cottereau, Gannal, Richard, and others, have invented various forms of apparatus for this purpose, but we frankly confess that a simple teapot is as well adapted to the purpose as the most complicated machines.
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> " The moist fumigations may be charged with volatile matters, as chlorine, iodine, hydro-sulphuric acid or the various essential oils, which are not indeed without their specific action on the mucous membrane of the air passages, as has been proved by the experiments of M. Gannal, Cottereau, &c.
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> " We have even made our patients inspire fumigations of cinnabar, sulphurous acid, &c., &c., with various results. All these applications have the serious inconvenience of not being confined to the larynx, but coming in contact with the pulmonary mucous membrane, which they irritate exceedingly, and it is

impossible to confine their action to the diseased organ; this is the reason we have renounced their use. We now employ nothing but emollient, aromatic, balsamic, and opiate vapors, such as can exert no unfavorable influence upon the lungs.

" *Liquid medications.*—Liquids are much more easily applied, and without risk of injuring the trachea and bronchia. We have used those that are irritating, and others simply astringent. The former are solutions of nitrate of silver, of corrosive sublimate, sulphate of copper, and nitrate of mercury; but the first we decidedly prefer on account of its rapid action, its harmlessness, and its efficacy in almost all external maladies.

" We use it of various strength; sometimes we put a dram of the nitrate to two drams of water, sometimes half this strength.

" Various methods have been devised to apply the caustic to the larynx: when we wish to operate upon the upper part of the larynx and the epiglottis, we take a piece of paper firmly rolled together, and bent at its extremity, which is to be soaked in the solution, so as to take up at least a drop; the mouth is to be opened, and the tongue depressed with the handle of a crooked spoon. The porte caustic is then introduced, and when its extremity has passed the epiglottis, it is to be depressed, which buries it in the upper part of the larynx. A piece of whalebone answers the same indication, and is more convenient, because less flexible than the rolled paper.

" When we wish to cauterize the pharynx, the base of the tongue, and the top of the larynx at the same time, we take a whalebone, at least a line and a half thick, that it may not bend readily;—this is heated an inch or more from one end, and, when sufficiently softened, we curve it at an angle of forty-five degrees. To this end, we fasten a spherical piece of sponge, six lines in diameter: the sponge is to be moistened with a solution of nitrate of silver, and the mouth opened, and the tongue depressed as before. When the isthmus of the gullet is passed, there occurs an effort of deglutition which elevates the larynx, and we seize this opportunity to draw forward the sponge, which had been at the entrance of the œsophagus. By this manœuvre we get at the glottis, and then it is easy to express the solution into the larynx: the cough, which now occurs, favors the introduction of the caustic. The operation often excites vomiting.

" This plan, though not painful, is very disagreeable, and many patients refuse to submit a second time. We then use the following, which is equally efficacious, and less unpleasant.

" It consists of a small silver syringe, like Anel's, with a tube five inches long, and curved at the end. The opening of the tube should be at least a quarter of a line in diameter. The syringe is filled to one-fourth of its capacity, and then the piston is raised to its full extent, so that there shall be one quarter solution, and three quarters of air in the instrument. This is indispensable, that when we depress the piston rapidly, we may produce a fine shower, and not a full jet.

" The patient is placed as before; and when the end of the tube has passed the epiglottis, the liquid is pushed out of the instrument, and is simultaneously introduced into the larynx and upper part of the œsophagus. The patient instantly experiences a convulsive cough and regurgitations, which enable him to throw off the solution which is uncombined with the tissues. We then make him drink a few mouthfuls of hydrochloric lemonade, or simple salt water, to decompose any of the solution that may have remained in the œsophagus.

" One must have practised, or seen these cauteries performed, to have an idea of their harmlessness, and of the little pain which results. We are very much afraid of cautery, for it is exceedingly painful on the skin or mucous openings, though scarcely felt in the pharynx, larynx, or neck of the uterus. We must not confound the organic sensibility of the larynx that sympathetically causes the cough, with the animal sensibility of this organ, which is extremely obtuse.

" We shall furnish some cases that show the utility of cauterizing the larynx in the first stage of laryngeal phthisis."

Next follow a considerable number of cases, illustrating the efficacy of this mode of treatment. As doubts may exist in the minds of some of our readers as to the practicability and safety of cauterizing the larynx, we may remark that we have not practised it ourselves, but have seen it done repeatedly by others. We have stated that to Dr. HORACE GREEN belongs the credit of introducing this topical mode of treating laryngitis, into this country; and we are happy to know that the same success has attended the treatment, in his hands, as seems to have distinguished it in the hands of its original inventors. Under the proceedings of the New York Medical and Surgical Society, are reported twelve cases of *Aphonia*, treated successfully by this method, accompanied by some interesting remarks of Dr. Green, to which we invite attention. From not distinguishing between the *animal* sensibility of the larynx, which is extremely obtuse, and the *organic* sensibility, which is highly exalted, physicians have been led to doubt the possibility of introducing stimulating substances below the epiglottis. We were, at first, much surprised to see how very little irritation was produced by the introduction of a sponge, saturated with a solution of nitrate of silver, 40 grs. to the ounce, into the larynx, when, in ordinary cases, the slightest drop of fluid within its cavity, excites spasmodic cough and symptoms of strangulation. It is, however, a well-known fact, that foreign bodies are often lodged in the larynx, without exciting much inflammation. For example, in the 23d vol. of the Medico-Chirurgical Transactions of London (1840), Sir Cæsar Hawkins has published a paper on the "Diagnosis of foreign bodies in the Larynx," in which he mentions a case where a girl got a bone lodged in the larynx (the vertebra in a neck of mutton), nearly half an inch long, and a third of an inch wide, the outer surface of which was rough and irregular; and yet there was no cough, nor difficulty of breathing, nor had there been any from the time of the accident: the voice, also, was natural, and there was only a slight croupy sound on inspiration. The bone was removed by tracheotomy, and the patient recovered. Mr. Hawkins calls attention to the fact that the extreme irritability is in the glottis, but that when a foreign body gets below this, there may be an entire absence of all symptoms of irritation. "It appears," says he, "that in three cases, in which a foreign body was fixed in the situation of the cricoid cartilage, below the glottis, the severe paroxysms of coughing, which are invariably looked for, as an evidence of the presence of a foreign body—(but which really belong essentially to its presence in other parts of the tube)—were entirely absent in two, and were mild in the third; so as to lead the surgeon to believe they could not arise from the entrance of the pebble, as the child asserted; and were afterwards entirely absent, in the last month of her life—that even the voice was unaffected in two of the cases, although hoarse in the third case, &c." Baron Larrey also mentions facts, in his Surgery, going to establish the same position; although Mr. Stokes tells us that a foreign body within the larynx "will produce more or less *violent and incessant* attacks of cough and dyspnœa, in which the lungs are found, on auscultation, to be sound, and the larynx to be the seat of the constriction," &c.

A brief analysis of a few cases, reported by our authors, must close the present notice.

Case 1. Miss G., aged 15, owing to taking cold, during a suppression of the catamenial discharge, had an attack of laryngitis, which became chronic, and she lost her voice entirely. Pharynx red, no pain in larynx, no disease of lungs. After using, without benefit, anti-phlogistics, emollients, gargles of alum, and syrup of *erysimum*, the larynx was touched, at first every day, and then twice a week, with a solution of nitrate of silver, 15 grs. to two drachms of water. "At the second application, some hoarse sounds were produced during the day; after the third, the *aphonia ceased*, but the voice was still cracked; it acquired its natural character after the eighth application, and the cure was established." (Ob. 34.)

Case 2. H. M., aged 20, laboring under amenorrhœa, took cold, had sore throat, and waked up with complete aphonia. Bleeding was employed, a large blister applied in front of the neck, which was kept discharging, and other means used, without the least effect. The larynx was then cauterized; and, on withdrawing the sponge, convulsive movements, cough, and frequent spitting ensued, but ceased after two or three minutes, except slight cough and spitting. Next day, no change—some pain on swallowing: 48 hours after, aphonia had partially disappeared; patient spoke clearly. On the 3d day, voice much better; on the 4th, she spoke with facility; the aphonia had entirely disappeared, and did not return. Slight soreness remained in the larynx for a few days longer, and she left the hospital perfectly restored.

Case 3. Case of aphonia of three months, caused by chronic laryngitis, cured by one application of the caustic.

Case 4. Age 43.—The patient had been troubled with bronchial catarrh for a long time, which finally destroyed her voice—had been treated with leeches, blisters, &c., without doing good. At length, after being aphonic for three or four years, the larynx was cauterized. On withdrawing the sponge, *hiccough immediately followed, with vomiting*, and an *uncontrollable cough*, which lasted nearly a quarter of an hour. "When the cough and vomiting had moderated, we asked if the operation had caused any pain? She answered, *with a hoarse but strong voice*, that she had suffered but very little." Silence was enjoined, and an *alum gargle*. The aphonia returned. In about two weeks, the operation was repeated *with a saturated solution of nitrate of silver*, and a larger sponge, containing more of the fluid. Owing to a spasmodic closure of the glottis, the sponge was not introduced into the larynx, but the pharynx, tongue, and all the bronchial mucous membrane, was of a milky whiteness: "a violent cough and vomiting immediately ensued, and the latter continued for 24 hours, whenever the patient drank anything; still the parts were scarcely painful: there was neither fever, pain in the stomach, nor loss of appetite. All the functions were natural." Cough, with copious expectoration, without a restoration of the voice, continued for twelve days; on the thirteenth day, the voice returned at first hoarse and sharp, afterwards clearer, and remained perfect as it had ever been. In this case a saturated solution of alum and vinegar was used after the second cauterization as a gargle.

It is unnecessary perhaps to quote any more cases; the reader will be profited by reading them at length as contained in the work under notice. The usual strength of the silver appears to have been half a drachm of the nitrate to ℥ij of water, or a saturated solution: the operation was sometimes repeated every fourth day, in other instances, once a week, or two weeks, according to circumstances: using in the mean time gargles of a saturated solution of alum: or insufflations of pulverized *alum* or *calomel*, *one part*, and *candied sugar, seven parts*. Speaking in a whisper, or in an under tone, was enjoined, and reading slowly, but aloud, for five minutes every day. The above treatment is represented as being generally, but not always successful, as the disease is often complicated with a tubercular affection of the lungs.

MM. T. & B. make the following observations in relation to *Pulverulent topical Remedies :*

> " *Pulverulent topical remedies.*—We were led by that sure guide, analogy, to apply irritants to the larynx. We observed that collyria of corrosive sublimate, sulphate of copper, nitrate of silver, and sulphate of zinc, modified the chronic phlegmasia of the mucous membrane in ophthalmia both rapidly and happily.—Similar results were observed in the nasal fossæ, and we supposed it would be the same with the larynx: experience proved that our conjectures were well founded.
>
> " It cannot be denied that the introduction of liquids into the larynx is attended with difficulty; the operation is unpleasant for the patient, and the sudden constriction of the glottis always prevents the medicine from penetrating far. We want, then, some method of applying therapeutic agents to the whole of the larynx, and even to the upper part of the trachea.
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> " Aretæus had already prescribed insufflations of powdered alum to the larynx in malignant angina, and it must be confessed that at the present day, this medicine, which has been introduced by M. Bretonneau of Tours, is one of the most powerful agents we have, to check the extension of false membranes from the pharynx into the air passages.—Aretæus's instrument was a simple reed. M. Bretonneau used a tube with a bulb in its course, traversed by gauze. These instruments were always employed by the physician or attendants when the patients were children; the patient should make his inspirations coincide with the insufflation; still the powder may fall into the pharynx, and upon the tongue, and provoke efforts of vomiting or a spasmodic constriction of the gullet, which may defeat our object.
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> " It appears to us much better to confide the insufflation to the patient himself. The apparatus is in fact the reed of Aretæus, a glass tube being substituted for it. This tube should be two lines in diameter, and eight or ten inches long.
>
> " Three or four grains of the powder is to be put into one end of the tube, the other extremity is to be placed as deeply in the mouth as possible.
>
> " After emptying his lungs by a strong expiration, the patient closes his lips upon the tube, and then by a quick effort of the diaphragm, takes breath rapidly.
>
> " The column of air, in traversing the tube, divides and hurries along the powder towards the pharynx, but a part, suspended in the air, penetrates the larynx and upper part of the trachea. We are advised of its having entered the larynx by fits of coughing, which the patient should repress as much as possible so as to preserve the medicine in contact with the affected tissue. These inspirations are repeated more or less frequently every day, according to the state of the larynx, the nature of the powder, and the manner in which it is borne.
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> " We have in this manner introduced pulverulent collyria into the larynx, as easily as into the eyes. We use powdered sugar, the subnitrate of bismuth, calomel, red precipitate, the sulphate of zinc, sulphate of copper, alum, acetate of lead, and especially nitrate of silver.
>
> " Sugar and subnitrate of bismuth may be used pure, the calomel mixed with twelve times its weight of sugar; red precipitate, sulphates of zinc and copper, with thirty-six times their weight, alum with twice, acetate of lead with seven times its weight, and the nitrate of silver, with seventy-two, thirty-six or twenty-four times its weight of sugar. These are the proportions we generally adopt, but they may be varied ad infinitum, and must be regulated by the state of the larynx and the susceptibility of the patients.
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> " The apothecary should be directed to prepare these powders on a porphyry slab, otherwise small crystalline asperities remain, which act as irritants and provoke repeated efforts of coughing, which do not allow the patient to retain the powder.
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> " When the laryngeal affection is not serious, we use the subnitrate of

bismuth. Observation XXVI. proves its efficacy, even where the disease from its commencement was owing to crude tubercles in the lungs. The following case will afford further evidence of the innocuity and utility of this substance."

"We use insufflations with acetate of lead, alum, the sulphates of zinc and copper, and nitrate of silver, in cases of laryngitis without ulceration, when sugar and sub-nitrate of bismuth have proved ineffectual. We always begin with alum, when we suspect the presence of swelling of the mucous membrane without a high grade of inflammation. Such was the case with the child cured of croup by tracheotomy, recorded in Obs. XV.

"We consider insufflations with nitrate of silver always indicated, not only when there is a simple erythema of the mucous membrane, but even when erosions or ulcerations exist; it is the article we generally use. The insufflation is made twice or thrice a week, or even every night, according to the susceptibility of the larynx, and strength of the powder.

"We never use calomel and red precipitate, which are so powerful in chronic, syphilitic, or other ulcerations, except when we have reason to believe that ulcerations exist in the mucous membrane. Such was our diagnosis with Mme. G., Obs. XXXIX. But we shall make one important remark in regard to these medicines. Practitioners have no doubt observed that when calomel or red precipitate mixed with sugar, in the proportions above mentioned, is blown into the eyes, a slight irritation follows, which lasts some hours, and if the insufflation be repeated two or three times a day, an acute phlegmasia will ensue. The same holds with the indiscriminate use of mercurial unguents.

"What we see occurring in the ophthalmic, occurs equally in the laryngeal mucous membrane. We therefore, at first, only advise two or three applications a week; experience has proved, that the symptoms grow worse if they be repeated once or twice a day at the beginning. But, as the patient becomes accustomed to them, we may and should repeat them more frequently, and also increase the proportions of the mercurials in the powder.

We repeat, we advise mercurial insufflations in laryngeal phthisis, consequent upon a common inflammation, as well as in those of a syphilitic character. They are equally applicable to both.

"*Mercurial Medication.*—A reference to the ponderous tomes on the use of mercury, and an impartial examination of the cases published to prove its efficacy, will convince us that many of the most acute and serious inflammations, many chronic engorgements and ulcerations in various situations, have been cured by this class of remedies; and, perhaps, their chief efficacy in syphilitic affections depends upon their power of modifying the general, and, consequently, the local condition of the organism, rather than upon any specific virtue, as many of our contemporaries have contended.

"Living in a country where mercury is given profusely, and, we may add, with little discretion, we have had an opportunity of witnessing its effects on most diseases. In this way, chance has perhaps shown that the mercurial plan has often effected cures in laryngeal phthisis, when so far advanced that no hope of recovery was entertained. M. Pravas, in his thesis on laryngeal phthisis, in 1824, called the attention of the profession to this important point of therapeutics."

For cases illustrating the efficacy of these remedies we must refer to the work itself. In employing the nitrate of silver for a lotion, it is important to use that which comes in crystals and not in the cylinder form, as the latter is often found to contain a portion of uncombined nitric acid, which causes considerable irritation. With respect to the propriety of resorting to this local method of treating diseases of the larynx, we should say that where, from general and physical signs, we have reason to believe that the lungs are not seriously diseased, it would be advisable to use local applications to the larynx, after the manner recommended by our authors : but where there is tubercular disease existing, the most that can be expected from the treatment is temporary relief.

The following remarks are offered with respect to the operation of *Tracheotomy* in laryngitis :

> " *Tracheotomy.*—Whatever may be the form of laryngeal phthisis, when the tumefaction of the mucous membrane and submucous cellular tissue has gone so far as to prevent the entrance of a sufficient quantity of air into the lungs, death is threatened, if we do not open a passage to the air. Catheterism is the first mode which suggests itself to the mind, and Hippocrates* proposed the introduction of tubes by the mouth. This plan was exclusively followed by physicians until Asclepiades, who first proposed the incision of the trachea, according to the method we shall presently describe.
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> " Desault† revived the plan of Hippocrates, which had fallen into disuse; but he asserts, that it is only practicable in cases of pharyngeal angina, when the inflammation has not invaded the larynx or trachea ; for, besides the difficulty of introducing the tube through swollen tissues, its presence would cause an increased irritation. Boyer‡ was therefore wrong in blaming this practice of Desault, without adverting to the restrictions so judiciously adopted by the surgeons of Hôtel-Dieu.
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> " We may here introduce some reflections which will convince our readers of its inutility.
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> " First ; the anatomical arrangement of the parts, and their respective curves, do not admit the introduction, and especially the maintenance in the larynx, of any other than flexible tubes, such as those of gum elastic. The nature of the case requires prompt action, lest death by asphyxia occur. If, then, too large a tube be used, there will be an obstacle to overcome, which will require time and not force ; and if the end of the catheter be detained in the glottis for two minutes only, death would inevitably follow.
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> " The tube must be of medium calibre (No. 10 or 12 at most), and the respiration being performed through the eyes of the instrument, a very little mucus may obstruct it ; besides, its calibre is liable to be diminished by pressure against the obstacle in the larynx, by fits of coughing or vomiting, and by efforts of deglutition. We therefore entirely reject this plan, in laryngeal phthisis, and conclude that there is no better resource than opening the air passage.
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> " Asclepiades was the first who recommended opening the trachea in extreme cases. Believing that the cartilaginous rings would not unite when cut, he proposed a transverse incision between them. Cœlius Aurelianus, who speaks of this operation, regarded it as quite chimerical and criminal. It has now been so often successfully performed, that we are surprised at the fears it excited in the minds of the ancients.
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> " Before our times, tracheotomy had only been performed for acute diseases of the larynx, to extract foreign bodies, or for the sake of dressing wounds of the organ.
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> " Desault was the first who made a clear exposé of the indications for the operation in laryngeal phthisis ; but he never practised it. After him, almost all the physicians who wrote on œdema of the glottis, or chronic phlegmasia of the larynx, advised it as an extreme measure. At first, the operation did not succeed, because improperly performed. We have reported sixteen cases in this work, five of which were our own.
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> " The first case of introduction of a sound, to remedy an obstruction of the larynx, was reported by Mr. Goodeve,§ who cited Price, who had worn a canula ten years, though he does not inform us what surgeon had introduced it ; but it

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* De Morb., lib. iii., cap. 10.

† Œuvres chirurgicales, tom ii., pag. 251.

‡ Traité des maladies chirurgicales, troisième édition, tom. vii., pag. 127.

§ London Med. and Physical Journal, July, 1826.

must have been anterior to the operations of Lawrence and Ch. Bell, who adopted the same expedient in 1815.

"Let us here make a few observations on the mode of operating, and on some circumstances which have occurred in our experience. We have tracheotomised seventy-eight times; seventy-three for croup, and five for laryngeal phthisis; and, therefore, have had occasion to modify the procedure and instruments.

"We shall say nothing of the first steps of the operation, from the division of the skin until the cartilage is laid bare; only observing, that if the ligation or torsion of arteries be demanded, there is no necessity to secure the veins. These vessels often tear under the forceps or thread; at any rate, no harm results from cutting them, unless their calibre be great, in which case they should be avoided or tied. When the trachea is denuded, a puncture is made, and the finger instantly applied. As many rings are cut, above and below with a probe-pointed bistoury, as may be deemed necessary, and the finger instantly placed over the incision to prevent the blood from flowing into the trachea. Then seizing the dilator, which we have described in the second volume of the Journal des Connaissances, page 4, the finger is removed, and the instrument is rapidly introduced, and opened so as to separate the lips of the wound.

"The patient is made to sit up, and the canula instantly introduced. It should be long, and of a large calibre; it immediately becomes an unyielding point of compression; and if the venous hemorrhage persist, which is a frequent occurrrence in adults with this disease, the wound may be plugged as much as you please, without preventing free access of air by the canula.

"If, on the other hand, we should wait for the venous hemorrhage to stop before we introduced the canula, it would be necessary to tie many vessels, which would require much time, and be almost impracticable; and in the mean time, an increase of the symptoms of asphyxia, and consequent continuance of venous hemorrhage, which is no doubt chiefly caused by the difficulty of respiration.

"When all the accidents have been met, and the patient has expectorated all the blood that had got into the bronchia, he should be placed on his bed, the lips of the wouud should be brought together above the canula and secured with adhesive straps, and a roller pierced with a hole for the canula.

"The mucus which will accumulate in the canula must be removed; this is easily effected by a little horse-hair swab. The canula must be changed as often as the difficulty of respiration may indicate."

"After all, the operation is but a palliative, or temporary relief, if there exist any incurable disorder in the larynx or lungs: it may prolong life, but when there is only ulceration or swelling in the larynx, and when the cartilages are not necrosed, there is every reason to hope for recovery.

"The treatment, after the operation, is the same that would have been employed, had not suffocation required this more urgent duty. When the cure of the laryngeal lesion is slow, we should profit by the opening into the trachea, and introduce topical medications, which will be the better borne, because the larynx has ceased to convey air, and to contract convulsively on the least stimulus: thus, with a metallic probe and a piece of sponge, we have touched even the glottis with thick liquids, such as gum water, having calomel suspended in it; mercurial ointments, or any medicines which we may expect will exert a happy influence in modifying the state of the mucous membrane.

"If small necroses exist, the consecutive swelling of the sub-mucous cellular membrane will not disappear until the removal of the sequestrum. We have observed such a separation in the case of Dr. Evrat (Obs. No. LVII.); and in the case reported by Dr. Goodeve (Obs. No. LV.), the patient threw up, with coughing, a considerable portion of cartilage.

"But, if the sequestrum be of such a character that its elimination is impracticable, purulent fistulæ are established either into the pharynx or trachea, or even externally; and the small number of sympathetic disorders, sometimes excited by the laryngeal affection, allows the patients to live with a canula; who may esteem themselves fortunate, if the constant contact of a foreign body with the tracheal mucous membrane does not excite unpleasant reaction in the lungs, and, finally, tubercularisation."

We conclude by expressing the opinion that the work of MM. Trousseau and Belloc is one of distinguished merit, and worthy of receiving more attention from the profession, both in this country and Europe, than it has hitherto done.

Art. XIII.—*A Treatise on the Diseases and Hygiene of the Voice.* By Colombat De L'Isere. Translated by J. T. W. Lane, M. D. Boston, 1845.

To the author of this work was awarded by the Royal Academy of Sciences of France, the prize of five thousand francs, for his work upon the mechanism of pronunciation and his success in the treatment of errors of speech, and particularly of stuttering. The favorable and probably unique situation which he has occupied for many years, as founder and director of the Orthophonic Institution, at Paris, has afforded him such means of observation upon this peculiar class of affections, as have fallen to the lot of no other person. Although this work seems to have been written for the general reader, to make him acquainted with the physiology and the diseases of the organs of the voice, and the conditions necessary to preserve them in health; yet we think it may be equally useful to the physician, as it treats of these same subjects in a manner calculated to advance our knowledge in relation to them.

After a description of the *Vocal Instrument; the voice and its formation;* of the *mechanism of the voice;* of the *Pharyngean voice or Faucette;* the author takes up the subject of *aphonia* and *disphonia*, meaning, by the former, the incapacity of producing vocal sounds, and by the latter, an alteration of the voice which renders its emission more or less difficult, and often even painful.

We quote the following table of the *Diseases and Organic Lesions, which may cause Aphony and Disphony.*

"*First Species.*—Idiopathic cases of aphony and dysphony, arising from a physiological, anatomical, or traumatic lesion of the vocal organs.—These may be caused by the inflammations of the larynx, by those of the trachea, bronchi, isthmus of the fauces, tonsils, uvula, veil of the palate; by laryngeal phthisis, œdema of the glottis, thickening of the pharyngo-laryngean mucous membrane, atony and paralysis of the muscles of the pharynx and larynx, spasm of these organs; by falling down of the uvula, by its division with that of the veil of the palate and of the palatine bones; finally, by wounds or contusions of the larynx and trachea, or an opening situated below the glottis; finally, by the section or lesion of the laryngeal and pneumo-gastric nerves, etc., etc.

"*Second Species.*—Aphony and dysphony symptomatic of certain diseases which affect the whole economy.—These may be caused by adynamic fevers and ataxic; by some worm affections; by pulmonary phthisis; by aneurism of the aorta which then compresses the left recurrent nerve; by lesions of the spinal marrow, excessive swelling of the stomach; by apoplexy, hemiplegia, anemia, general weakness, convulsions, epilepsy, hysteria, catalepsy, chorea, insanity, cholera, frenzy; acute moral affections, such as fear, anger, joy, etc.; finally, by the abuse of ardent spirits, and the introduction into the economy of some poisonous or narcotic substances, etc.

"*Third Species.*—Sympathetic aphony and dysphony, depending upon the reaction which results from a pathological condition of certain organs more or less remote, and having no immediate relation with the vocal apparatus.—These may be caused by a falling down or an enlargement of the womb; by the presence of a polypus in the cavity of this organ; by ulcerations situated about its neck; by the state of pregnancy; by amenorrhœa; by dysmenorrhœa; the sudden suppression or the commencement of the menses; by the swelling or inflammation of both testicles; by chronic hepatitis; a derangement of the system of the vena porta, or atony of the primæ viæ; finally, by the suppression or diminution of a natural or artificial discharge, by perspiration too long continued or suddenly stopped, especially about the feet and cutaneous surface.

"*Fourth Species.*—Specific aphony and dysphony, resulting from a primitive or consecutive remote affection, which has been conveyed to the vocal organs.—These may be caused by the venereal, scrofula, scurvy, arthritis, rheumatism, gout, psoriasis, herpes; by nearly all the exanthematous affections; finally, by the ill-managed employment of the preparations of iodine and of mercury, which sometimes give rise to swellings and ulcerations of a peculiar nature."

In chronic enlargement of the tonsils, the author recommends cauterization with the solid nitrate of silver, or a saturated solution, passed over their entire surface,—a treatment which we have found perfectly successful, and far preferable, in most cases, to excision. Where the enlargement depends on a scrofulous diathesis, the preparations of iodine, internally and externally, are enjoined, and especially gargles of iodine, 5 grs. to the ounce of water, with the use of tonic mineral waters, and bitter infusions of hops and gentian. In prolongation of the uvula, the writer recommends astringent gargles, and cauterization with the nitrate of silver, and if these do not succeed, prompt recourse should be had to excision. We see nothing particularly worthy of notice in the writer's description of the chronic inflammations of the Larynx and Trachea and primitive Laryngeal Phthisis, nor of the modes of treatment. The following remarks embrace the substance of what is offered on the latter subject:

"An absolute silence should first be directed, and, in order to leave the affected organs as much as possible in repose, the patients should be requested to resist the disposition to cough as much as they can. It would be happy for them if they could in these cases suppress the cough as they can the speech, which can be supplied to a certain point by signs and writing.

"Recourse may be had to flying blisters, moxas, small cauteries, and what has appeared to me preferable and from which I have obtained very good results, to frictions upon the sides of the larynx, with the ointment of the tartrate of antimony, till the pustules are formed. Small bleedings from the arm, to the amount of a quarter or half a porringer, the applications of leeches to the sides of the larynx, scarifying cups upon the nape or to the lateral parts of the neck, will act, at the same time, as derivative and antiphlogistic measures. Finally, the inspiration of the vapor of tar water, and especially of that of a solution of creosote water, made with one scruple of creosote to four ounces of water, may be employed with advantage. This latter measure, which I have employed with advantage, and which modifies and very quickly in some cases cicatrizes over chronic ulcers of a bad character, requires to be employed a great number of times, and to be studied with the greatest attention, that positive conclusions may be drawn with regard to its efficacy in the treatment of ulcerating laryngitis. Such observations perhaps I shall have the advantage over every other person in making, from the care which I have taken to mark the effect of this new therapeutical agent in chronic diseases of the larynx. During the treatment of these guttural affections, the patients should be restricted to a soothing regimen composed of porridge, gelatinous broths, feculent or other articles of diet which should have as nearly as possible the consistence of pap, in order to render the deglutition easier and less painful; finally, the same measures may be pursued towards the patients as were pointed out in the treatment of chronic bronchitis.

"When primitive ulcerating laryngitis resists the measures we have recorded, there yet remains another which we have never employed, but which appears to have met with the greatest success in the hands of the Irish surgeon *Carmichael.* This measure, which we should hesitate to adopt, regarding it as the only means of safety from a certain death, is tracheotomy performed in the manner recommended by this celebrated sergeon. As this operation is very important in its results, we deem it a duty to refer the reader to the original article in *The Dublin Medical and Surgical Journal, for* 1833."

The chapters on "Sympathetic, Specific and Scrofulous Aphony and Dysphony," contain many valuable suggestions and practical hints, that may be useful to the practitioner. "Chronic exanthematous and scorbutic aphony and dysphony," are also treated of, as well as those kinds, which are symptomatic of other affections, as from worms, nervous debility, "a cold," or hoarseness, &c. The other chapters treat of a "peculiar modification of the Laryngo-Pharyngean mucous membrane;" of "Sore Throat, or acute and chronic Inflammations of the Pharynx;" of "Coryza or Cold in the Head;" "gargles," and "Hygiene of the voice," etc.

Art. XIV.—*Twenty-fourth Annual Report of the Bloomingdale Asylum for the Insane. For the year* 1844. New York: 1845—8vo. pp. 55.
Annual Report of the Managers of the State Lunatic Asylum, made to the Legislature, Jan. 31, 1845. Albany, 1845—8vo., pp. 53.

Among the institutions which confer honor upon the Empire State, stand first on the list, her hospitals and other charitable establishments. No country on the globe, and we do not say this in a spirit of vain boasting, can point to better arranged and better managed, and more successful establishments of the kind, than the "New York Deaf and Dumb Institution," the "Institution for the Blind," the "New York and Bellevue Hospitals," the "New York and Leake and Watts Orphan Asylums," and the two Lunatic Asylums above mentioned.

Dr. Earle has wisely, as we think, embodied in his first Report a more detailed account of the establishment under his charge, its condition, discipline, internal policy and progressive history, than is contained in any of the Reports that have preceded it.

We are happy to learn that Dr. Earle proposes, at an early period, to prepare a complete and detailed analysis of all the cases treated at the Asylum since it was opened for the reception of patients, thus placing the important statistics of the Institution in a condition accurately to lend their aid in the endeavor to arrive at interesting and valuable conclusions in reference to the subjects with which they are connected.

The following remarks upon the causes of insanity are highly judicious, and indicate a discriminating mind.

> "Of all the objects desirable to be accomplished by the Physician of the Insane, none is more difficult than that of ascertaining the true origin or cause of the disease. In some cases, it is true, in which the mental defection has immediately succeeded an exposure to any severe shock, either physical or moral, as, for example, a blow upon the head, or the sudden loss of a near relative, there can be but little doubt upon the subject. But far more frequently the real cause is unknown and undiscoverable. Sometimes there are two or more circumstances, conditions or events, either of which might have produced the disorder, and occasionally, perhaps it may be said frequently, the *effects* of the disease are mistaken for the *cause.*
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> "In cases where the mental affection is either hereditary or constitutional, we believe that it never becomes manifest until provoked by some species of irritation or excitement; but in the cases included under those two heads in the table, the exciting cause was not satisfactorily ascertained.
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> "It is a debatable question, and one upon which medical authorities differ, whether the majority of the cases of insanity arise from physical or from moral causes, from agents immediately operating upon the body, or influences primarily affecting the mind. A difficulty in the way of determining this question is, a diversity of sentiment as to the nature of those causes; some believing that, in relation to a given agent, the primary influence is upon the body, and others supposing it to be upon the mind. Again, in a given case, one person would attribute the disease to some immediate and apparent cause, whereas another would trace it to an influence more remote. If a man suffering from grief, or the embarrassments or perplexities of business, should resort to the stimulus of alcoholic liquors, become an habitual inebriate, and, subsequently, a maniac, the mental disorder would be supposed, by some, to have originated from intemperance, by others, from the grief or embarrassments which induced that intemperance."

Dr. Earle states that the number of patients having a suicidal propensity in the Asylum, is 26, out of 106. Of these, 14 were known to have attempted self-destruction, and some of them several times, prior to admission. The entire prevention of suicide among the insane, Dr. E. thinks impossible. He mentions one instance in which a patient with suicidal propensity, was placed with his hands muffled, in a room from which every article of furniture had been removed; but who succeeded in destroying himself by getting into the window and precipitating himself head foremost, upon the floor. Another, a female patient, being deprived of every article of clothing adapted to the purpose, strangled herself with her hair.

> "Should every patient suicidally disposed be placed constantly under corporeal restraint, asylums would become hideously deformed with straps, wristbands and muffs. Moreover, this method, as in the case of the man above-mentioned, not only affords no perfect security against self-destruction, but appears to increase the number of attempts, by rendering the patient more strongly determined to execute his fatal purpose. This fact is strikingly corroborated by the testimony of the officers of Bethlehem Hospital for the Insane, in London. In their last report, they say that 'from 1750 to 1770, *when every patient was under restraint*, the suicides were in proportion of 1 to 202, whereas during the last twenty years (when restraints have been but little used), the proportion has been only 1 in 963.' Thus, the actual amount of self-destruction was nearly five times as great under the old system of bodily confinement, as it is under the present method of freedom from straps and strait-jackets."

This is in direct opposition to the following opinion of Dr. Ray.—(Report for 1844. Augusta, Me., 1845.) Who shall decide when such doctors disagree?

> "In most cases where they (mechanical restraints) are now used in American hospitals, I have no hesitation in saying that they are far preferable to the vigilance or force of attendants. The object is gained more surely, more effectually, and with far less annoyance to the patient. A mechanical contrivance performs its office steadily, uniformly and thoroughly, and is submitted to as something inevitable. The will and strength of an attendant are capricious and variable in their operation. The strong effort is occasionally relaxed, and the idea of eluding his vigilance or overpowering his strength, is constantly present to the patient's mind. The former is mere inert matter and excites no feeling, while an attendant constantly present, watching and restricting every movement, is viewed as the author or abettor of his sufferings; his spirit is chafed, and a constant state of irritation is produced."

On the general subject of "Restraint," in the treatment of the insane, Dr. E. has the following observations:

> "*Restraints.*—The means of bodily restraint, 'tranquillizing chairs,' straps, muffs, wristbands, mittens and other appliances for the confinement of the body and limbs, have been considered as necessary evils, or, perhaps, by some, as necessary promoters of good, in establishments devoted to the accommodation of the insane. Hence they have been employed, even in very recent times, to a much greater extent than was necessary.
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> "In our individual experience, we have found that in proportion as we have become acquainted with the insane, with their tempers, dispositions, habits, powers of self-control; and capabilities of appreciating the ordinary motives which influence the conduct of mankind, has our opinion of the degree to which these means are necessary, been diminished. Our practice has corresponded with this change of opinion, and the results have been eminently satisfactory. At the present time there is no patient in the Asylum upon whose body or limbs there is any apparatus of restraint. In the men's department, no such means have in any instance been resorted to during the last six weeks, and in but a single instance during the last three months. In the case alluded to, a patient whose ordinary conduct is unexceptionable, but who is subject to sudden and uncontrollable impulses to destructiveness, acting under the influence of one of his paroxysms, broke a chair and some windows, and his hands were confined by wristbands two days.
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> "The so called 'tranquillizing chairs,' which had for many years been among the means of restraint, were taken from the halls in April last, and neither of them has since been used.
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> "It has heretofore been customary to keep a supply of the other kinds of restraining apparatus in each hall throughout the establishment. About the 20th of November everything of the kind was removed from the men's department, and deposited in the Physician's office, where it has since remained undisturbed. And yet, during the period that we have been connected with the Asylum, there has been no equal extent of time in which there has been so general a prevalence of quiet, order, good feeling, contentment and reasonable conduct, as during the last six weeks; and in support of this statement an appeal may with confidence be made to the other Officers and Attendants of the Institution, as well as to those gentlemen of the Committee who have visited the several departments of the establishment during that time. It is not asserted, for it is not our opinion, that restraints upon the limbs are never necessary. On the contrary, we believe there are cases in which the application of them is the most judicious course that can be pursued. We once heard a patient beg most earnestly to have her hands confined lest she might injure herself. There is a female now in the Asylum who is subject to frequent and very violent paroxysms, or 'fits,' in which there is an uncontrollable propensity to bite herself. If her hands be unconfined,

she immediately plunges her teeth into the flesh of the forefinger, the upper portion of the thumb, or the arm. We have no hesitation in regard to the propriety of confining the hands in a case like this. One of the means of restraint among the most simple, effectual and least offensive to the patient, is the *Camisole*, the only distinguishing peculiarity of which is, that the sleeves are of about twice the length of those of ordinary garments. This being on, the patient's arms are folded in the manner frequently adopted by persons in health, and the two sleeves are tied together behind. Thus there is no pressure upon the body or limbs, no liability to abrasion of the skin, as with the wristbands and muffs, and the limbs are in a position as easy and agreeable as any in which they can be placed."

Dr. E. also treats, in a very sensible manner, the subjects of "Medical" and "Moral Treatment" (the latter including religious worship, instruction, manual labor, recreation, and amusements), "Attendants," "Regimen and Sanatory Measures," and concludes with a "Historical and Descriptive Account of the Asylum," &c. The Report is very ably drawn up, and does great credit to the accomplished physician who has charge of the Institution.

Dr. Brigham confines his remarks chiefly to those subjects that would most interest the public at large, and those who have friends in the Asylum. In his former report, he has gone into details possessing more interest for the profession generally, and which were noticed in a former number of our Journal. As the subject of restraint is one which is undergoing much discussion at home and abroad, and as we have quoted Drs. Earle and Ray on this point, we present the following view of Dr. B., as embodying the results of his extended observation and experience.

"*Treatment of Violent Maniacs.*—Many of this class are brought to us in chains, or with their limbs confined by strong cords. These are in all cases immediately removed, and the patient is kindly addressed and assured that he is among friends that will use him well. He is also told the truth in the presence of those who accompany him, respecting the Asylum and the object for which he is brought to it. He is then taken to the apartment he is to occupy, and permitted to have his liberty, but his attendants are directed to watch him carefully, and if he is disposed to be violent, to strike, to break the windows or the furniture, to put him into his room.

"Most of the rooms for patients are of the same size, none smaller than ten by nine feet; but those for the violent class are in some respects more comfortable; they are well ceiled with boards, handsomely painted, which makes them warmer, safer, and better for patients than those with plastered walls. The upper part of the door opening into the hall from each room, is open lattice work, so that the patient can look into the hall and be constantly seen from it. The window which lights each room, is well secured by a strong lattice shutter, so open that the patient can look into the yard or garden. If he is disposed to tear his bed or bedding, they are removed from the room during the day; and if we find from our own observation, that he tears his clothes, and that no persuasion or watchfulness on our part can prevent his doing so, we usually enclose his hands in leather muffs, or in mittens of leather or strong cloth, or apply soft leather or cloth wristbands so as to confine the hands.

"These are the only methods of restraint we adopt with the most violent patients. We never in any case use ropes or chains, and dispense entirely with strait-jackets. We occasionally have a patient who would exhaust himself by walking, jumping, or standing up continually, that we fasten in a gentle manner to a chair or bed for a short time. But none of these methods of restraint are long continued without giving the patient an opportunity of showing that they may safely be dispensed with. We much prefer that a patient should occasionally break a pane of glass or tear some of his clothing, than to keep him constantly confined. We therefore give him frequent opportunities, and place before him inducements, to exercise self-control.

"As we have said, no part of the establishment is made so comfortable for patients as this, where the most violent are placed. We assign to this class a greater number of experienced and discreet attendants than to any other, some of whom remain constantly with the patients—and two of them sleep in the same apartment. The part of the building assigned to this class at the present time, is the end of the first or basement story of each wing, and which is of easy access. We have no detached or out-buildings for patients, nor do we intend to have, as we deem it important for the welfare of the insane, especially for those who are violently deranged, that they should be placed where they can be readily and frequently visited by the physicians, the matron and other officers of the establishment—both by night and by day. In the new building now erecting, larger accommodations, and in some respects more convenient, will be provided for this class, and such arrangements adopted to prevent those that are very noisy from disturbing other patients.

"The food for those that are violent and much excited, is carefully adapted to their condition, and supplied to them in such a manner that no injury will be likely to arise to themselves or others. The utmost care is taken to insure the comfort of this class of patients, by properly ventilating and warming their apartments. Their bed, bedding and clothing require and receive much attention. Some are disposed to destroy their bedding or to remove it from them, and thus liable to suffer from cold in the night.

"Such patients give us much anxiety, and we resort to various methods to insure their comfort. To prevent their suffering from cold during the night, we find nothing better than a dress made of woollen blankets, open behind, and with the sleeves and legs extending below the hands and feet, and sewed up at the extremities. This garment, covering the whole body and fastened behind, will usually be kept on during the night, though, in some cases, we have to enclose the hands in mittens. It effectually secures the patient against cold, especially of the feet, which is most difficult yet very essential to guard against during the night. During the day a few patients wear strong loose gowns, which in cold weather, for those that are feeble, are padded.

"We never allow a patient to be punished. An attendant who is known to strike, or otherwise abuse a patient, is immediately dismissed, and this is well known to all. We sometimes, however, withhold some little favor, or refuse to comply with some of the wishes of the patient, intending it to operate as a punishment for misdemeanor, or more frequently, we promise some additional gratification, such as the privilege of attending religious services in the chapel, or visiting the museum, if he will control himself in certain particulars, such as refraining from hallooing, striking, injuring his clothing, &c. We rarely shower patients with cold water, except in warm weather, and when they request it for their comfort. We sometimes do not use it when we think it might be useful, for fear of its being considered a punishment, and thus do more harm than good. We more frequently apply cold water directly to the head, without wetting any other part of the body, and this we find very useful in cases of great excitement. But we never allow attendants to do this without an order from one of the physicians; and we do not permit a large quantity to be applied—a little is sufficient in cases where any is required. We find the warm bath, especially if long continued, with cold water gently applied to the head at the same time, often very effectual in quieting excited patients, and disposing them to sleep.

"But as we have said, this is a very changeable class; often those whom we are obliged thus to treat, become better in a few days, and are placed with those that are more quiet. To no one object are our efforts more constantly directed, than to diminish the number of this class, and to dispense with all kinds of restraining apparatus, although we most firmly believe, after much reflection and inquiry, and repeated attempts to entirely dispense with it, that some restraining apparatus such as we have mentioned, is not only essential for the comfort of patients, but in some instances preserves their lives."

We lately had the pleasure of spending a day at the State Asylum, and observing the management of the establishment in all its departments and details; and we feel it to be a duty, as it is a pleasure to state, that although our expectations had been highly raised, with respect to the mode in which it was conducted, and especially the kindness, skill, humanity, and devotedness of the superintendent, and his able assistant, these expectations were more than realized. The two hundred and sixty inmates seemed to constitute, in reality, a large and well regulated, well-behaved private family; and all sat down to their meals, at well-arranged, well-furnished tables, and conducted with as much decorum as boarders at the Astor. Although we slept two nights in the building, we heard no screams, nor cries, nor noise of any description; and as we looked into every nook, and hole, and corner of the establishment, and saw no chains, nor cords, nor strait-jackets, no "tranquillizing chairs," or straps, or muffs, or wristbands, or even mittens, we do not believe that any of these articles exist in the establishment. If they do, Dr. B. keeps them locked up mighty close. We also attended divine service with the inmates on Sunday in the chapel, where the Rev. Dr. Rudd, of the Episcopal church, officiated, and we never saw a more orderly congregation or one more attentive. The singing also was first rate. In the evening we attended a musical party, composed of the best singers among the patients in the establishment; and we have rarely heard an equal number discourse more *rational* or sweeter music. We should have had no suspicion of the insanity of a single one of them, if we had not seen them in such a place, or, as we say, under suspicious circumstances. The secret of the whole is, there is a *head* to the establishment—a main-spring, regulating the movements of all the inferior cog-wheels, and giving regularity and order to all its complicated machinery. Well may New Yorkers pride themselves in their LUNATIC ASYLUMS.

ART. XV.—*Report of the Medical Missionary Society in China, containing a General Survey of its Operations, from March,* 1843, *to June,* 1844. Macao: 1844.

FROM the above Report, for which we are indebted to the kindness of Dr. MACGOWAN, late of this city, it appears that over 15,000 Chinese patients are now annually attended by the six physicians attached to the different Missionary Stations in that country; and that over 30,000 have availed themselves of foreign medical aid, since the commencement of Medical Missions in the Celestial Empire. Considering the violent prejudices of the Chinese against foreigners, and everything foreign, this must certainly be regarded as the highest possible proof of skill on the part of the physicians—whom, like all other foreigners, the natives had been taught to regard as uncivilized, ignorant, and barbarous. Drs. HEPBURN and CUMING are located, it appears, at Amoy—Drs. MACGOWAN and CARTER at Ningpo—Dr. HOBSON at Hongkong—Dr. LOCKHART at Shánghai, and Dr. PARKER at Canton. On looking over the list of cases, treated at the different stations, we are surprised to see how large a proportion labor under diseases of the eye. Out of 3,764 cases treated at

Shánghai, there are 236 of ulceration of the cornea, 88 of ptosis, 89 of leucoma, 108 loss of both eyes, 73 of one eye, 58 cataract of both eyes, 32 cataract of one eye, 56 incipient cataract, 26 amaurosis, 57 closure of pupil, 44 staphyloma, 15 hernia iridis, 192 catarrhal ophthalmia, 326 granular lids, 326 do. with opacity, 79 granular lids with pannus, 153 entropium, 97 ectropium, 40 trichiasis, 61 contraction of tarsi, 138 pterygium, &c. Has opium-smoking anything to do in the production of these diseases?

From Dr. Lockhart's report, we quote the following passages:

"Intermittent fever was also met with in a large number of persons. Gastrodynia prevails also to a great extent. Diseases of the eye were as numerous as in other parts of China. One case of cataract presented itself, and both eyes were successfully operated on. One case of confirmed mania was noticed in a respectable woman, 50 years old, the mother of a large family.

"It was mentioned, in the former report, that intermittent fever prevailed to a great extent at Chusan. This opinion was confirmed by the large proportion of cases, which again presented themselves, and the beneficial results of quinine were well remembered. The cause of this frequency of ague is, no doubt, attributable to the marshy state of most of the large valleys throughout the island.

"Elephantiasis. Several cases of this malady, in its worst form, were seen, and the persons thus afflicted were chiefly residents of the valley named Yentsáng, which is very wet and marshy at all seasons of the year. The patients were, for the most part, agricultural laborers. Three cases of attempted suicide, by the eating of prepared opium, are mentioned in the list. In one of these, the quantity swallowed was half a tael (a little more than half an ounce). The case was seen soon after the poison had been taken; free vomiting was induced, and the patient recovered. The cause of this attempted destruction of life originated in a quarrel with a fellow servant, about some articles of food which had been stolen from their master. Some weeks afterwards, the same man again took opium, because, in a dispute with some of the females of his family, one of them bit him severely on the hand, which excited the laughter of the others against him. This time, the dose taken was but small, and its effects passed speedily away. The second case was in a man who suspected his wife of unfaithfulness to him. The third was that of a woman whose husband had beaten her, because she wasted his money. The quantity of opium swallowed, in both these cases, was small, and the effects passed off after the evacuation of the stomach by copious vomiting.

"Four cases of attempted suicide are mentioned, by swallowing a solution of salt and water. It is supposed, by the natives of Chusan, that if water be allowed to percolate through a quantity of common salt, half a pint of the strong solution thus produced, if swallowed, will cause death. Sometimes an infusion of tobacco is added to the solution; this, of course, would be more or less injurious, according to the strength of the infusion. In one of these cases, a weak infusion of the tobacco had been added, but without producing any other effect than nausea and vomiting. Although it is said, by the people, that death often ensues after taking the solution of salt, still in the cases of attempted suicide, by this means, to which aid has been solicited, no such effect, or the apparent likelihood of it, has ever been produced. Two of these instances were women, who having been beaten by their husbands, wished to revenge themselves, by casting the guilt of their death on them, or perhaps merely to frighten their offending partners. Another was a young woman, who took the solution because her grandmother would not allow her to wash her clothes when she wished to do so, whereat she was so much offended as to think it better to die than to live. The last case was that of a man, who, having had a dispute with his sister's husband, about some money of trifling amount, which was not settled to his satisfaction, on that account attempted suicide.

"The case of severe gunshot wound of the thigh was the result of accident. A gentleman was out shooting in a boat. During his absence, one of the boatmen, carelessly taking up the gun to look at it, raised one of the hammers, which, slipping out of his fingers, the gun went off, and the contents were lodged in the back of his fellow-boatman. When the man was brought to the house, a very extensive lacerated wound was found at the posterior part of the thigh, and the flexor muscles of the leg were much torn. There had been considerable hæmorrhage, but no large vessel appeared to be involved in the mischief. The man was placed in as comfortable a position as possible; simple dressing applied; extensive sloughing of the surface of the wound took place at first, followed by profuse suppuration, and the wadding and charge of shot was removed a fortnight afterwards, through an aperture that formed on the lateral part of the thigh. The man's strength did not fail, healthy granulations filled up the cavity in his thigh, cicatrization progressed rapidly, and when the patient was sent home to Chinhái (in consequence of the closing of the hospital at Chusan), but a very small portion of the wound remained open.

"A Fukien man was frequently seen at Tinghái, of a strong, robust frame of body, who had seven toes on each foot, and six fingers on each hand. There were two great toes on each foot, the supplementary ones projecting inward: both were strong and well nourished; the five smaller toes were of full size. He had also two thumbs on each hand, the outer being a little smaller than the true thumb; the other four fingers were of usual size."

"The case of gunshot wound through the pelvis, was in a little girl, eleven years old; she was standing near the military exercise ground, while the soldiers were firing at a mark, and she was accidentally wounded. She was seen four days after the accident, February 10th, when it was found that the ball had passed through the pelvis, entering very near the right trochanter, and passing out anterior to the left trochanter. The child had suffered very severe pain; was wholly unable to stand; the right thigh was slightly bent on the body, and could not be extended without inducing much suffering: fæces were passing per vaginam, but little constitutional disturbance arose, and fever existed only in a slight degree. On the 18th, fæces began to pass through the wound on the right side; this continued for three or four days, and then ceased; free suppuration was now flowing from both wounds, and from the vagina. It would appear that the ball had passed through the lower part of the pelvis, opening a communication between the rectum and vagina; the bones of the pelvis on both sides, and the os femoris of the right side, were most probably injured, but to what extent could not be ascertained. The limbs were kept in as comfortable position as possible; water dressing applied to the wound, and though the suppuration was very great at first, it has gradually diminished, and the wounds are now (April 31st) very small, the evacuations are almost wholly confined to their proper channel. The little patient sits up for a short time every day, her appetite is good, and there is every prospect that she will soon be well, though she will doubtless go lame all her life.

"The large tumor in the neck was in a man of 50 years of age. The tumor, an encysted one, as large as a man's head, was pendant from the horizontal ramus of the lower jaw, and the lateral part of the neck, and not attached to any of the deep-seated fascia. The tumor had existed for 25 years, and caused the patient so much annoyance that he was very anxious for its removal. He was accordingly admitted into the house, and the following day the tumor was removed. Considerable hæmorrhage occurred during the operation, but this soon ceased, and three arteries only required the ligature; a great portion of the wound united by the first intention; the ligatures came away by the 9th day, and in three weeks the man was discharged perfectly well, and very grateful for the attention that had been paid to him. The people who heard of this case were much astonished, as they had not previously imagined that such an operation was practicable. Several cases of the malignant form of Asiatic leprosy have presented themselves, some of whom came regularly, and are of course very anxious for relief; but it is feared that little can be done for their benefit.

"Elephantiasis does not exist here to so great an extent as at Chusan; but, in one of the cases, the left thigh and leg were of an enormous size; the circumference of the lower part of the thigh being 27 inches, and round the calf of the leg also 27 inches. Confirmed cases of elephantiasis may perhaps be considered incurable; but if regular treatment be commenced at an early stage of the disease, there may possibly be some prospect of success.

"The case of suicide by opium eating occurred in a man from Ningpo. He had been out of work for some time, and on this account wished to put an end to his life. As near as could be ascertained, he had taken two drachms of prepared opium, about 4 hours before he was visited; he was conscious, but laboring under great oppression. Pupils much contracted, the presence or absence of a strong light producing no change on them; free vomiting was with much difficulty induced, and other means employed, so that it was hoped the man would recover; he however sank and died during the night. Almost all the cases of cataract operated on were admitted into the house; two women could not be received as in-patients, for there was no accommodation for females; but both these cases were doing well when last seen. Of those taken into the house, one was a respectable old man, a Chinese physician from the town of Páushán. The cataract in the left eye was extracted, but a portion of the vitreous humor escaped during the operation, and the sight of that eye was not restored so perfectly as had been anticipated. The cataract in the right eye was depressed, and when he returned home, the power of vision was increasing. For the most part the other cases were successful. In a few the power of vision was only partially restored, owing to changes that had taken place in other parts of the eye besides the lens, interfering with the healthy action of the organ. Within the last few days a lady from Súchan, and two respectable merchants from the same place, afflicted with cataract, have applied for relief, and will shortly be acted on.

"Of the three cases in which the operation for artificial pupil was performed, one was tolerably successful; in another, after the pupil was formed, it was discovered that the retina had lost its power; and the third was found to be complicated with cataract, which latter has yet to be removed. The number of cases in which one or both eyes were lost, is very large, the destruction of the organ being for the most part caused by severe catarrhal ophthalmia; in numerous instances from long continued entropium, and also from the effect of small-pox pustules on the cornea."

"At Shánghái, numerous bathing-houses are met with, which are established by private individuals, as a source of profit. They are, for the most part, large commodious houses, kept very clean; and great numbers of Chinese constantly resort to them at all hours, more especially in the latter part of the day. The price for a bath is six coppers cash, exactly one farthing; for the bath and a cup of tea, nine cash. In the front of the house there is a large hall, fitted up with great numbers of boxes and compartments, in which the visitors place their clothes; all these boxes are under the charge of a door-keeper, who gives the bather a clean towel, and is responsible that no transfer of property occurs during the absence of the owner. A passage leads from the hall to the bathing apartment, which is a small room, the greatest part of which is taken up by a large water trough made of tiles—this is filled with water, and kept hot by a fire placed underneath; planks are placed across the trough on which the bathers sit in the steam and wash themselves, or get into the water at pleasure. The water is changed once every day; and, although this would not suit the ideas of an European, in respect to cleanliness, the Chinese do not regard it, and appear to enjoy the bath as much in the evening, as when the water is first put in earlier in the day. This establishment (the attendance at which is of course entirely confined to the men) must be a great source of cleanliness and comfort to the people, who have the advantage of a hot bath at a very low rate of charge. The average daily attendance is about a thousand. Similar bathing-houses are also kept at Ningpo."

ART. XVI.—*The Cyclopædia of Practical Medicine, Parts* XXI., XXII., XXIII., XXIV. Philadelphia: Lea & Blanchard. 1845.

THESE numbers complete the work. Both publishers and editor are entitled to commendation, for the regularity with which the different parts of this excellent publication have been carried through the press. We congratulate the profession on having so valuable a Cyclopædia placed within their reach, on such reasonable terms. In some respects it is more comprehensive, in others less so, than the great Dictionary of Dr. Copland, now in course of publication, and the merits of each are so distinctive and peculiar as to prevent the sale of the one from clashing with that of the other. The truth is, that *both* are indispensable to the physician who wishes to be armed at all points, and fully up to the science of the day. We may allude to a few points in which the two Dictionaries differ from each other. One is written by some sixty different contributors—the other by a single hand. The one gives a very just view of the present state of British medical theory and practice, and of the peculiar views of the particular writer, on each subject that passes under discussion ; the other is a complete digest of the medical literature of all ages and nations, with a full account of existing opinions and practice.

The one contains distinct articles on dietetics, and the materia medica —the other has no separate essays on these subjects, but brings them in, in connection with the different diseases, and states of the system in which they are indicated. Each plan has advantages on which we need not dwell. The one omits *Medical Bibliography ;* the other (Copland) has a very full and valuable one at the end of each article ; to which the Editor appends the titles of the most important American works, with references to such articles on each subject, as are contained in our Medical Journals.

Other points of difference might be noted, but it is unnecessary. He who is in possession of both these Cyclopædias, will own a Medical Library, rich in every department of the science, and superior in value and utility, to what is generally to be found in the offices of American physicians. And both may be had for the small sum of twenty dollars.

ART. XVII.—*Elements of Comparative Anatomy of the Vertebrate Animals designed especially for the use of Students.* By RUDOLPH WAGNER, M.D., Professor of Comparative Anatomy and Physiology in the University of Gottingen, etc., edited from the German, by Alfred Tuck, M. R. C. S., New York. J. S. Redfield, 1845—8vo., pp. 264.

DR. WAGNER is the worthy successor of the illustrious Blumenbach in the University of Gottingen. He was born at Baireuth, in the year 1805, and after graduating in medicine at Wurzburgh in 1826, he repaired to Paris, and placed himself under the tuition of the celebrated Cuvier, where he pursued his studies in Natural History, spending much time in the Garden of Plants, and the various Museums with which that city abounds. He afterwards visited the coasts of Normandy and the Mediterranean, and spent some months at Marseilles and Nice, investigating the Zoological relations of the lowest classes of organized beings. From thence he sailed to Sardinia, still pursuing his investigations in Natural History, and in 1840, he was unanimously invited to fill the vacant Professorship of Comparative Anatomy and Physiology made vacant by the death of Blumenbach. He has already published several important works, all remarkable for perspicuity of arrangement, and clearness of description, showing that he is one of the best Comparative Anatomists of the age. We know no Elementary work in the English language which presents in so small a compass, and at so reasonable a price, the substance of all that is known upon the Anatomy of the several classes of the Vertebrate animals.

The clearness and brevity of the style is not the least recommendation of the work—the typographical execution, as well as binding, reminds us of the handsomest publications of the British press.

Art. XVIII.—*A Treatise on Poisons, in relation to Medical Jurisprudence, Physiology, and the Practice of Physic.* By Robert Christison, M. D., F. R. S. E. First American, from the 4th Ed. Edition. Phila. Barrington & Haswell. 8vo., pp. 756.

We are happy to announce an American Edition of Prof. Christison's invaluable work on poisons. Heretofore, there has been no good book on this subject accessible to the profession in this country,—a deficiency which happily exists no longer. When we consider the objects of Toxicological Science; how it supplies antidotes for the various poisons; furnishes the physiologist with valuable instruments of research in his investigations into the laws of the animal economy; how it aids the physician in his inquiries as to the action of many energetic drugs; how it collects from the numerous branches of medical knowledge, as well as from collateral sciences, the materials of the most important department of medical jurisprudence; when we consider all this, and how it saves the physician much unnecessary labor, by laying down the general principles by which the search for new antidotes must be regulated, we shall have a faint conception of the importance of this branch of modern medicine.

Its chief and most important application, however, is to medical jurisprudence. We have not time, nor is it necessary for us, to point out the indispensable necessity that now exists, for every medical man to make himself perfectly acquainted with the Toxicological department of this science.

The work of Prof. Christison, being recognized, by common consent, as the standard authority on this subject, it is unnecessary to do more than announce the fact of its publication.

Art. XIX.—*Hydropathy, or the Water-Cure ; Its Principles, Modes of Treatment, &c.* Illustrated with many cases, compiled chiefly from the most eminent European Authors on the subject. By Joel Shew, M.D. 2d Edition, Revised and Enlarged. New York: Wiley & Putnam, 1845., 12mo. pp. 360.

This work of Dr. Shew has been placed in our hands for notice, and we accordingly have looked over its contents. It contains very little of the experience of the writer, and very few of his own views, but is made up chiefly of extracts from the writings of Capt. Claridge, Drs. Johnson, Scudamore, and a few others. As a specimen of authorship, the work will never take a very high rank ; but it may be serviceable to the writer as a mode of advertising—of letting the public understand that the author practises *Hydropathy*, and may be found at such a number, in such a street.

Dr. S. begins by telling the reader in the preface, that " he early learned to distrust the existing systems of medicine, and was on the look out for something better," in short that he " had no confidence whatever in medicine, both before and after he had commenced the study of it." We had always supposed that ignorance and prejudice were matters rather of concealment, than boasting; yet here is a man who avows himself the subject of both, and glories in what ought to be his shame. Did it never enter Dr. Shew's mind that the fault might possibly exist in his own understanding ; that it was quite as probable that he was wrong, and the rest of the world right, as that he was right, and the whole world wrong ?

Now, this whole matter of hydropathy lies in a nutshell. Does all medical science consist in the application of cold water ? Is there no other remedy ? No state of the system to which some other mode of treatment could not be better adapted—can cold water do everything, can it reduce a hernia, or amputate a limb ? Has not water, hot and cold, in various modes of application, always been in use as a medicinal agent, from Hippocrates down to the present time ? Where is the well educated physician who does not recommend, at times, the cold, hot or shower bath, the vapor and sulphur baths ; and cold sponging, &c. ; and who would not recommend them much oftener, were conveniences for bathing as general as they ought to be ? Dr. S. falls in with the vulgar notion, that every physician is bound hand and foot by some terrible " system ;" under whose untoward sway he is driven, "*nolens, volens*," to certain modes of practice to the neglect of all others, though better perhaps than those he himself pursues. Nothing can be more erroneous. Physicians of the present day, if not formerly, are influenced but very little by theory—they select remedies of every kind, and from every kingdom of nature ; they do not reject one article because it is a mineral, nor choose another because it is a vegetable—if they bleed, it is to obviate a greater evil by at most a lesser one ; they do not turn their backs upon a medicine, because it has been introduced by an Indian, an old woman, Hahnneman, or Priessnitz ; experience is the test to which everything is brought; and the experience of the whole medical world in favor of existing modes of practice is worth, in our estimation, more than that of Dr. Shew, in favor of the *cold water cure*.

The "*cold water cure*," moreover, is a decided misnomer. Take Priessnitz for example. Most of his disciples tell us that the cures effected at his establishment, have resulted from the application, external and internal, of cold water; whereas, *pure air*, *exercise*, and *simple diet*, together with abstinence from spirituous liquors, and regular hours, have had far more agency than the former. With respect to diet for instance, *Priessnitz* prohibits all *brandy*, and other distilled spirits, *wine, beer, coffee, tea, spice, chocolate, pepper, cloves, mustard, salt-fish, and meat, and spiced meat*, &c., and the food, which is of the plainest kind, is mostly served *cold*, and *cold-water* is the only drink at table. As regards *exercise*, he enjoins a walk, at least twice a day, in the open air, and each time for an hour. He directs the body to be warmed, even in the coldest weather, by exercise, and not by exposure to artificial heat; these, with other observances of an equally important nature, certainly justify us in the conclusion, that *cold water* is not the most efficient therapeutic agent employed. We admit that the hydropathic, or rather the *hygienic* treatment is of superior value in many cases of chronic disease, when judiciously pursued; but to regard it as some do, in the light of a *panacea*, or to believe that *cold water* is to supersede all other medicinal agents, is in the highest degree absurd. As used by the advocates of the system, we have no doubt that it causes very great injury in many cases, being carried beyond what the powers of the system can bear, and employed, too, without regard either to the nature or seat of the disease.

And yet, after all, there is a good deal in hydropathy that we like—we think we have found good in *Thompsonianism;* something in *Homeopathy*, that may possibly be turned to good account; something in *Mesmerism* that cannot be gainsayed; and a great deal in *Hydropathy* that is really excellent; just as the bee extracts honey from poisonous flowers. We like to see people, and especially females, who have been brought up in effeminacy and indolence, and strangers to thorough ablution, dash and splash, and rub and scrub themselves in cold water; there is something exhilarating even in the thought of perfect cleanliness of the skin, and we think we see a fresher glow upon the cheek, a brighter eye, a lighter step, a more brilliant countenance, a more cheerful mind, a better heart, at every douche of the pure element. Individuals brought up in wealth and luxury and idleness,—whose skins have acquired such a degree of sensibility, that, if the "winds of heaven visit them too roughly," they are immediately thrown into a chill—who are, consequently, suffering during a great portion of their lives from colds, and coughs, and other similar affections, will find immense benefit from the hydropathic treatment, and if they cannot become inmates of a hydropathic establishment, they will do well to provide themselves with a shower-bath, or a sponge and tub, by which cold water may be applied to the surface every morning. We go for hydropathy to this extent, and even for the application of the douche to every part of the body in succession; for we have found this one of the best tonics in nervous cases that we ever tried; and in cases of *fever*, with hot and dry skin, and vigorous circulation, we think very favorably of the application of the *wet sheet*, with external warmth, and have no doubt that perspiration will sooner be brought on under such circumstances, by such treatment, than by any other.

Our large cities, owing to the great progress of refinement and luxurious habits, abound in individuals, who need, and would be benefited by the strict discipline of a hydropathic establishment, provided, however, the treatment were not carried quite as far as that of Priessnitz. If some strong-minded, self-willed mountaineer could be found, so ignorant as to be obliged like Priessnitz, to employ a Secretary to sign his name, and carry on his correspondence ;—if such a man would open an institution at Lebanon, or Schooley's Mountain, or some other part of the country where the patients could have the benefit of mountain air and mountain scenery, plain food, hard exercise, and a plenty of cold water, there can be no doubt that he would draw the fashionable, and the wealthy, and meet with very flattering success. But his knowledge must be *intuitive.* His learning, like Dogberry's, must come by nature. There is no *bone-setter* like your *natural* one, and there is no medical wisdom or skill, like that of the seventh son's, which is acquired by inheritance. Dr. Shew need not make the attempt, for he tells us he was bred to the profession, and labors under the insuperable obstacle of a regular education.

But let no one imagine that many of our democratic citizens will ever submit to the discipline of the great German water-doctor. It may do for Princes and Princesses, Counts and Countesses, Dukes and Dutchesses, Barons and Baronesses, Generals, Governors, and other civil officers, —but it will never be submitted to by independent republicans. We are not so fond of *liquid*-ating, as all that. For, only follow, in imagination, one of Priessnitz's spleeny hypochondriacal patients, through the events of a single day. We take our history from the written statement of an eye-witness. At four o'clock A. M., a servant unceremoniously enters her bed-chamber, throws off her bed-clothes, and proceeds without delay, to wrap her closely in a blanket, and to cover her with a feather bed, placing a thick counterpane over that and tucking all tightly in. In a short time she is in profuse perspiration—a vapor-bath—cold water is brought, and she is told to drink freely and often ; she sweats and drinks, and drinks and sweats for the space of two, or three, or four hours. It is now eight o'clock. She is unswathed ; the bed is removed ; cold water is dashed upon her head and neck ; straw-shoes are put on her feet ; she walks to a cold bath in an adjoining room ; cold water is dashed over the whole naked body, especially the head, neck and chest, or dripping with perspiration she is plunged into a cold bath, where she remains some ten minutes, then is dressed and takes a long walk, drinks a quart or two of cold water, and goes to breakfast. After breakfast her ladyship takes another long walk, every now and then stopping to swallow a tumbler of cold water. By eleven o'clock she returns from the ramble among the hills, and is ready for the douche. What that is, may be understood from a lithograph on the frontispiece of Dr. Shew's book, where a poor emaciated invalid is seen seated on a board, while a stream of water is pouring down from some twenty feet above his head, over his naked shivering body. After having been "drenched" sufficiently, she dresses for dinner. If the patient is a little timid, or fears that the shock may be too severe, she is let off with the *wet-sheet*, instead of the douche. (This is only a sheet wet with cold water, and wrapped several times round the patient, who is then enveloped beneath a feather-bed, as in the former process, and on emerging, plunged again, over head and ears, into a cold bath, and then dressing and to dinner as before.) Dinner takes up nearly two hours, which seems decidedly aristocratic ; but then when we reflect that there are two or three hundred invalids, sitting down together, each one of whom has his or her "experience" to relate, and to hear that of his or her neighbor, the wonder is that they get through in so short a time as they do. Another excursion now follows of two hours, on foot, among the hills, and punctually at four P. M., we find our subject again comfortably packed up in wet-sheets; or mummy-like, swathed in coarse muslin, and loaded with a feather bed; or seated on the hard plank aforesaid, with a douche, like that of an over-shot mill-wheel, pouring over the water-soaked body. This pleasant amusement is kept up till 7 P. M., when she again plunges into the cold-bath, and thus fills up the time till 8, by dressing and walking, when she is ready for her cold supper. After supper, she either walks, or converses (about her case) till 9 o'clock, when she again tries the cold-bath, or a seat-bath, or a wet-sheet, and having drank another quart or two of cold water, she retires to rest, very well satisfied with her day's work, her feet and legs being carefully wrapped in wet clothes. It ought to be stated, however, that between the regular periods of bathing, much of the time is generally appropriated to *half-baths*, *sitting-baths*, *foot-baths*, *head-baths*, *and wet-compresses*, *&c.* If the patient has a sore throat, the neck is to be bound up with a wet towel; if he have rheumatism or gout, the same application is made to the affected limb; if he has weak digestive organs, he must constantly wear a wet bandage round the body; always remembering to drink as much cold water as possible—thirty glasses a day being considered a very moderate quantity. This treatment we are told is delightful—the patients in a short time submitting to it " with equal hilarity and conscientiousness."

When carried to this extent, however, consequences of rather an unpleasant kind are sure to follow. Dr. Nuonde, an eye-witness and personal friend of Priessnitz, tells us that " after four or five weeks, the effect manifests itself by critical fevers and eruptions, rash, furuncles, or ulcers," but that these very phenomena are indicative of success, and will be readily cured by cold fomentations. Besides this critical fever, he informs us that " colds, diarrhœa, and constipation are usual occurrences in the case, by means of which and the ulcers, nature ejects all noxious matters from the system, and for this reason they never ought to be interfered with, even if they should threaten to become obstinate and habitual, since they can always be cured at any time, by seat-baths, fomentations, drinking and sweating, according to the circumstances of the case."

These are the effects of what Dr. Shew calls " a *natural* remedy, intensified by *art*," altogether too intense for us, we must confess. Dr. S. denies that the water-cure treatment is QUACKERY. That depends entirely on the manner of practising it. We should say without hesitation that to denounce all other medicines, *en masse;* to condemn the existing modes of practice—to hold up hydropathy in the light of a panacea—to deny that it ever does injury, and maintain that it always does good; to do this, and say this, and publish this to the world in a book, is what we call *quackery*, and that of the grossest kind; if not quackery, it is deplorable ignorance.

Dr. S. asserts, that " nothing is easier than by the water-cure to produce, to any given extent, *directly opposite results*."

Suppose then that it be misapplied; that directly the " opposite results " are produced from what is intended. What then? Will Dr. S. tell us?

We are glad, however, to see attempts made to introduce the hydropathic treatment into this country. There is no danger of its ever prevailing among us to any great extent. *Hydrophobia* is altogether too prevalent for that. We believe that it will lead to a more general and free use of cold water, and to the practice of those hygienic measures, which experience shows to be necessary for the due preservation of health. Too much, indeed, cannot be said in praise of COLD WATER—for we believe in the old Spanish proverb that "*though no saint, it performs many miracles.*"

Art. XX.—*Recent Improvements in Arts, Manufactures and Mines, being a supplement to his Dictionary.* By Andrew Ure, M.D., etc. Illustrated with one hundred and ninety engravings. New York, D. Appleton, 1845—8vo., pp. 304.

Although not belonging to medicine, this work contains many articles of great interest to the physician as well as to the general reader, and is an extremely valuable addition to the original work. Among the articles which it contains, we may mention Arrow Root, Acetic Acid, Alum, Beer, Biscuits, Bitumen, Bread, Calomel, Chocolate, Distillation, Fermentation, Evaporation, Gelatine, Gums, Hops, Madder, Oils, Prussiate of Potash, Saccharometer, Starch, Stearine, Sugar of Potatoes, Tea, Sulphate of Ammonia, Mineral Waters, Tobacco, Artificial Yeast, Alkalimetry, Ventilation, &c. These, together with many other subjects, are treated of in a very minute and scientific manner; and altogether the work is one which every person ought to have who aims to keep pace with the discoveries and improvements of the day.

Art. XXI.—*Human Magnetism, its claims to Dispassionate Inquiry, being an attempt to show the utility of its application for the relief of human suffering.* By W. Newnham, Esq., M. R. C. S. L. New York, Wiley and Putnam, 1845—12vo., pp. 396.

We had intended to take up the subject of Mesmerism in our present number, at least so far as it is connected with "surgical operations during the Mesmeric sleep," but our limited space will not allow. There is, however the less occasion to discuss the subject in our pages, as the New York reprint of the London Lancet, No. IV., contains a very elaborate history of the whole matter, from the pen of Dr. Hall, to which we would refer our readers. As this is to be continued in future numbers, we hope that, when completed, it may be republished in a separate form.

The work of Dr. Newnham is undoubtedly the most candid and rational treatise in favor of Human Magnetism that has yet appeared. There is a certain class of persons whose minds are so constituted that they would believe all its marvels, were they a thousand times stranger than they are; while, on the other hand, there are others, who would not believe in its pretensions, were they confirmed by proof a thousand times more conducive than has ever yet been offered. So that we see no probability of the question ever being settled, as to the reality of its claims; but foot-ball fashion it seems destined to be kicked from one party to the other (those who have no better employment) in all time to come. Those who wish to see what can be advanced in its favor by a man of candor and science, will do well to procure the work of Mr. Newnham.

Art. XXII.—*The Forceps. Journal of Dental Surgery and the Collateral Arts and Sciences.* London. 1844–5.

We have received several numbers of this excellent Journal of Dental Surgery, and hope hereafter to receive them regularly. It seems to be conducted with admirable tact and judgment, and so far as the dental art is concerned, "to show the very age and body of the time, its form and pressure." Such a publication seems absolutely necessary to raise the art of dentistry in the estimation of the public, and its professors to a just sense of their own duties and importance. It also contains a great variety of articles on medicine, hygiene, and other scientific subjects, and seems adapted not only to the wants of the dentist, but to the general practitioner, and non-professional reader. The dentists of our own country are entitled, however, to the credit of having pointed the way in this department, as the American Journal of Dental Surgery was the first publication of the kind ever issued from the press. We hope that both these Journals will advocate the necessity of a thorough medical education in order to the intelligent and successful practice of the dental art; for without such, it can never acquire that respectability and influence, which it ought to possess, and to which it is justly entitled.

Art. XXIII.—*A Synopsis of the Symptoms, Diagnosis and Treatment of the more common and important Diseases of the Skin, with sixty colored figures.* By N. Worcester, M. D., Prof. of Physical Diagnosis and General Pathology in the Medical School of Cleaveland, Ohio. Philadelphia. 1845. Large 8vo., pp. 202.

This is a very careful compilation, and supplies a desideratum, long felt in the profession in this country. It is the first concise treatise, containing colored illustrations of the different forms of cutaneous disease, afforded at such a price as to be within the reach of all, that has yet appeared among us. The author has succeeded in giving accurate descriptions of the more common forms of these affections, and pointing out the most appropriate treatment; and the authorities, whom he has quoted, are those only who are recognized as taking the lead in this department of science. The work forms an excellent text book, both for teachers and students, and it will prove no less useful to the general practitioner.

Art. XXIV.—*A Dictionary of Practical Medicine; comprising general Pathology, and Treatment of Diseases, Morbid Structures, &c.* By James Copland, M.D., F.R.S. Edited with additions, by Charles A. Lee, M.D. Parts V. and VI., pp. 288. Harper and Brothers, 1845.

We are happy to learn that such is the demand for this work, that a second edition of the Nos. (which are stereotyped), has already been called for. The Mass. Medical Society have also subscribed for nearly 800 copies, to place in the hands of all their members: altogether, it promises to be the most successful medical book ever issued from the American Press. We are authorized to state, that the work will continue to be issued regularly till completed, and that the remainder of the book is in such a state of forwardness in England, that but little if any delay will ensue, after completing what has been already published, before the entire work is concluded.

Art. XXV.—*A Conspectus of Pharmacopœias of the London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopœia; being a Practical Compendium of Materia Medica and Pharmacy.* The Third Am. Edition. Edited by Charles A. Lee, M.D., Prof. of Gen. Pathology and Mat. Med. in Geneva Medical College, N. Y. H. G. Langley, 1845—18mo., pp. 315.

This is a still more Complete edition of the conspectus of Prof. Thomson, than the last, which was very speedily exhausted. The additions by the Am. Editor exceed in amount the original contents of the work, and consist of condensed notices of all the new remedies,—those embraced in the new American Pharmacopœia, and those scattered through our medical journals. The present edition differs from the last, chiefly by the extensive additions made to the toxicological part, which is now a very complete manual on that important subject. The practitioner here has, within the small compass of a pocket-book, all that he will need in cases of emergency, when suddenly called to cases of poisoning. Amidst the multiplicity of thoughts and cares incident to the practice of medicine, it is not every one that has all necessary knowledge at his finger's ends. It will hardly do, in such cases, to follow the homœopathic method of writing down *all* the symptoms, and then go home and look over our books, to find the antidote; such a proceeding borders too much on the *expectant* plan of treatment, ever to become very popular, in cases of this kind; as a substitute, we know no better plan than to buy this book, and carry it always in the pocket. We bespeak for it the continued favorable regards of the profession.

PART THIRD.

1.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

1. *The Spleen and its Functions.*—The observations on the functions of the spleen have elicited the following facts. 1. The greater part of the water, received into the body, is admixed with the venous blood of the spleen in a few minutes, by which means a great distension of this organ is effected. 2. The splenic veins, leading to the vena portæ, are filled during the digestive process with a darker blood than the other veins of the body. 3. The spleen has been extirpated in some animals (chiefly herbivorous), without any peculiar injury to the system, with the exception of a slight derangement in the process of chylification. 4. The spleen, possessing no eductory canal, can have no influence on the formation of chyle. 5. The periodical accumulation of blood in the spleen, particularly during digestion, makes it appear to be a mere reservoir of blood for the organism, favoring perhaps chylification by its pressure on the stomach. 6. The lymph, passing from the spleen, is redder and more coagulable than that of other organs. After the extirpation of the spleen, the lymph, as it passed into the thoracic duct, was white, thin, slightly coagulable, and, only after it had been exposed some time to the air, did it assume those properties of redness and greater coagulability, usually communicated through the influence of the spleen. 7. After the extirpation of the spleen, a more abundant urinary secretion takes place, the urine being thin and watery. 8. The bile has, in this case, a much darker color and an altered taste. 9. The volume of the spleen is enlarged, and the texture relaxed, by intermittent fever, as well as by typhus abdominalis. In explanation of the above facts, it is shown that the larger viscera of the body, and particularly of the abdominal cavity, have a specific attraction or relation to the elements of which the organism is chiefly composed, and by which it is reproduced: i. e. oxygen, hydrogen, carbon and azote: the lungs to oxygen, the kidneys to azote, the liver to carbon. Now, hydrogen alone remains, which is not always found combined with oxygen, in the form of water, in the organism, but also (pathologically) with other gases in the blood. The spleen seems to form the point of attraction for this hydrogen, a view confirmed by the fact, that in all countries in which an excess of hydrogen is found in the air, and thus received in the blood, affections of the spleen are chiefly produced. Thus, we may say, that the spleen has a specific relation to hydrogen, separating it from its combinations, in order to elaborate it for its peculiar organic purposes. Thus, water undergoes a decomposition in the spleen; the *hydrogen* is carried with the blood of the splenic veins to the liver, and used for the secretion of bile. This accounts for the dark color of the venous blood of the spleen, during digestion; therefore, the bile becomes changed in character, and the urine watery, after extirpation of the *spleen*. The oxygen of the water is absorbed by the lymph, and produces the color and coagulability proper to this fluid. In intermittent fever, the spleen becomes enlarged and softened, in consequence of the hydrogen collected in it. In perverted, or obstructed, function of the spleen, the water is left in the blood circulating through the body, and produces abnormal and morbid phenomena in consequence. The, so called, *splenic vertigo*, appearing under the form of a derangement of the functions of the brain, seems to be produced by this abnormal reception of hydrogen into the blood.—*Dr. Frank of Berlin in Casper's Wochenschrift.*

2. *An Account of Prof. Mulder's Chemical Physiology of red coloring matter of Blood.* By Dr. Golding Bird.—Mulder sets out by observing that the function of the red coloring matter must undoubtedly be an important one, inasmuch as it exists in such a large number of animals otherwise so distinct in their structure and habits, although at the same time it must be admitted that this substance is not absolutely essential to animal life, as it is wanting altogether in some tribes of animals. Regarding its origin, it must be assumed as being capable of being actually generated, *de novo*, in the organism, as it does not exist in the vegetable kingdom; consequently it cannot, like protein, be traced to the elements of food in the case of the herbivora. It is hence fair to presume, that if generated by the vegetable feeder, the carnivora must possess a similar power.

The coloring matter is normally enclosed in a sac or cell composed of a thin membrane, consisting chiefly of protein, and capable of admitting of percolation through its walls under certain circumstances, although it generally retains the colored fluid it encloses sufficiently firmly to prevent its admixture with the serum. Within the sac is a nucleus of similar chemical composition to the membrane, and the whole thus organized constitutes the *blood-disk*, *globule*, or *red particle*.

It has generally been assumed, that hæmatosine exists in two distinct states in venous and arterial blood; the former containing, according to the received hypotheses, most carbon or carbonic acid, and the latter most oxygen. These distinctions are founded solely on differences in color, and are unsupported by a single analysis. It was supposed, that in the lungs the red particles of venous blood exhaled carbonic acid, and absorbed oxygen in altering their tint to that of arterial blood. It is now well known that analogous changes of color are produced by merely immersing a piece of black venous clot in a saline solution, the vivid vermilion tint being assumed without any change in the proportion of oxygen.

A considerable proportion of coloring matter may be removed from a clot of blood by digestion in alcohol containing either sulphuric acid or ammonia.

The coloring matter of blood freed from other matters invariably presents the same constitution, viz.:—

44 atoms Carbon = 264
22 —— Hydrogen = 22
3 —— Nitrogen = 42
6 —— Oxygen = 48
I —— Iron = 28
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If a current of chlorine be transmitted through a solution of coloring matter of blood, the iron leaves the other elements, forming a chloride of iron, and the atom of metal thus removed is replaced by six of chlorous acid,* and the following compound is formed

$$(C_{44}H_{22}N_3O_6)+6\,(CO_3).$$

During this process, the red color of the hæmatosine is destroyed, and the new compound appears as a white flocculent precipitate. It must not, however, be assumed that the mere removal of the iron by the chlorine destroyed the color, for that metal may be removed without materially affecting the red hue of the hæmatosine. For this purpose, let some dried coagulum of blood (consisting chiefly of red particles and protein compounds) be macerated in concentrated sulphuric acid; after some days, water may be added, and the remaining excess well washed on a filter. During the action of the acid on the clot, *hydrogen gas is evolved*, and the iron dissolves, forming a proto-sulphate, which passes through the filter. The colored matter is left behind preserving its original red hue, notwithstanding the removal of the iron, mixed with a combination of protein with sulphuric acid, in the following proportions :—

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* Mulder regards this acid (Chlorige-saure) as composed of CO_3 and not of CO_4, as generally assumed. The former is the composition assigned to it by Count Studion.

	C	H	N	O	
1 atom of iron-free hæmatosin	= 44 +	22 +	3 +	6	
1 atom of protein	= 40 +	31 +	5 +	12 +	1 atom of Sulphuric acid.
4 atoms of water		4		4	
	84 +	57 +	8 +	22 +	1 atom SO_3

If, instead of digesting mere coagulum in the acid, pure red particles be substituted, the experiment is more satisfactory. For this purpose, allow blood as it escapes from a vein to fall into a solution of nitrate of potass. The coagulation of the fibrin is thus prevented, and a dense deposit of red particles falls to the bottom of the vessel; these, when well drained from adhering serum, and dried, may be mixed with strong sulphuric acid; *hydrogen gas is evolved just as when metallic iron is digested in the acid,* and after some days a solution of sulphate of iron is obtained, and the insoluble red coloring matter is thus left free from iron, but retaining its peculiar tint. The non-ferruginous hæmatosin consists of:

$$C_{44}\, H_{22}\, N_3\, O_6\ .$$

Having thus proved that the color of red particles does not depend upon iron, Mulder next proceeds to combat the doctrine that these bodies are "carriers of oxygen," and that iron is oxidized during respiration, as assumed by Liebig: an assumption which forms the basis of that philosopher's theory of respiration.

It appears that iron is so intimately connected with the other elements of hæmatosine, that it cannot be removed even by long digestion of red particles of blood in hydrochloric or dilute sulphuric acid. Consequently, even if no other explanation of the absorption of oxygen during respiration existed, these facts are sufficient to show the high impossibility of the iron being oxidized in the lungs, since it will not yield to hydrochloric acid. The converse has indeed been stated by Liebig, but his statement that weak acids remove iron from clots of blood, is explained by the fact that all the albuminous elements of blood contain a portion of this metal in a state which admits of ready solubility in acids.

If, as is assumed in Liebig's theory, sesqui-oxide of iron existed in arterial, and proto-carbonate of iron in venous blood, almost any dilute acid would be capable of dissolving out the oxide, which, as we have seen, is not the case. The fact of the iron really existing in the metallic state is moreover strongly supported by the evolution of hydrogen gas which occurs when sulphuric acid is digested on the clot, as pure red particles; this metal probably exists as an integrant component of hæmatosine, just as iodine does in sponge, sulphur in cystine, and arsenic in the curious kacodyl series of compounds; thus:—

C_4, H_6, As, = Kacodyl.
C_4, H_6, As, + 0 = Alkarsin, or Oxide of Kacodyl.
C_4, H_6, As, + 30 + 3 aq. = Alkargin, or Kacodylic acid.

Further, if iron existed as sesqui-oxide of hæmatosine, and is removed by strong sulphuric acid, the residual iron-free matter ought to consist of—

C_{44}, H_{22}, N_3, $O\ 4\frac{1}{2}$, instead of C_{44}, H_{22}, N_3, O_6, which is really left, for hæmatosine, $= C_{44}, H_{22}, N_3, O_6, Fe - Fe\ O\ 1\frac{1}{2} = C_{44}, H_{22}, N_3, O\ 4\frac{1}{2}$

—consequently the actual results of analysis are opposed to Liebig's theory.

From experiments of Scherer, it appears that when scarlet arterial ox blood is beaten to separate fibrin, and diluted with thrice its volume of water, it assumes a venous hue, and a current of oxygen gas transmitted through it, does not redden it. The mixture of a little oil, milk, chalk, or gypsum, with the black blood instantly restored its florid hue, so that the red color is owing to other circumstances than the absorption of oxygen. Scherer indeed concluded that the arterial color depended on white opaque particles diffused through the fluid.

It appears to have been observed by Hewson, that bright red blood-corpuscules are always bi-concave; these may therefore be supposed to reflect a great amoun of light, and thus act like the white reflecting particles of chalk, milk, &c., in Scherer's experiments. In dark-red blood, the corpuscules are convex, and the enveloping membrane much thinner than in bright-red blood, so that light passes easier through them, and they readily burst, allowing their contents to mix with serum when blood is largely diluted with water: the well known effects of saline solutions in reddening blood is readily explained by their producing exosmosis, and consequently, a partial emptying of the sac of the blood-corpuscules, which then becoming doubly concave mirrors, reflect much light, and cause the fluid containing them to present an arterial tint. A current of carbonic acid gas will cause such blood to become again black, by altering the form of the reflecting corpuscules, causing them to become bi-convex.

Protein readily combines, as we have seen, with oxygen, and forms a soluble tritoxide and insoluble binoxide, both frequently being formed simultaneously in health, and abundantly so in inflammation, constituting the buffy coat of inflamed blood. In the process of healthy respiration these oxides are formed, and immediately tend to solidify, as we see in "buffy coat;" they fix round each blood-corpuscule, therefore; virtually making their investing membrane thicker and more opaque, better enabling it to reflect light, and producing the bright red color of arterial blood. If we conceive such a layer of oxy-protein (buffy coat) to form round each blood-disc, and to go on contracting, it would produce a "cupped" state of two surfaces of the corpuscule (just as is seen on the upper surface of inflamed blood), and by converting them thus into double concave lenses, produce a condition more favorable for the powerful reflection of light, and necessarily heighten the light red color of arterial blood. On reaching the capillaries, the coating of oxyprotein is removed, the protein being employed for the repair of tissue, and the oxygen used for effecting the metamorphosis of effete and exhausted structures. The corpuscules losing their opaque covering, have their power of reflecting light diminished, their concave surfaces are lost, and the whole assumes a venous tint.

When a piece of black venous clot is exposed to the air, it becomes red, in consequence of absorption of oxygen, not by the coloring matter, but by the protein; and the opaque oxy-protein causes the mass to reflect a red light, just in the same manner that dark venous blood does when in a vessel of "milk-glass." A drop of an alkaline fluid destroys the red color of the clot by dissolving the oxy-protein.

Digested in salt and water, a black clot becomes red by partly emptying the corpuscules by exosmosis, and by thickening their investing membrane. The subsequent washing with water removes the salt, fills the corpuscules by endosmosis, thus altering their figure, and diminishing their reflecting power, and causing the clot to look nearly black.

All dilute acids, even the carbonic, blacken blood by altering the figure of the corpuscules, and dissolving the reflecting layer of oxy-protein round them.

Scherer regards the conversion of black venous into red arterial blood to depend upon the loss of carbonic acid, the absorption of oxygen, and the presence of reflecting particles of the white opaque contents of the thoracic duct. Mulder believes the simple formation of the oxides of protein to be a sufficient explanation. He does not consider that when carbonic acid blackens blood it affects the red particles further than by physically altering their investing membrane by diminishing its reflecting power. He refers the very black color of portal blood to such a state of the corpuscules, either from the action of carbonic acid, or more probably of a little free alkali (soda).

The real function of red corpuscules remains yet to be discovered; all evidence appears opposed to their playing any part of importance in the process of respiration. Mulder believes that they are generated from the normal constituents of the blood in the general circulation. Their destination is obscure: if they undergo a metamorphic change prior to their development into living tissue, the products of their decomposition may be probably traced to the *bilifulvin* of the bile. (In all probability, the red particles act physiologically, as has been suggested, in constituting the elements of many living tissues, playing the part of nucleated cells, as, indeed, is now pretty generally admitted.)

The following is a brief summary of the above views of Mulder:—

1. The red particles of blood contain iron as a simple element, combined with nitrogen, carbon, hydrogen, and oxygen, and are chemically identical in venous and arterial blood.

2. In traversing the capillary system of the lungs, the protein of the blood combines with oxygen, generating a compound analogous "buffy coat," which forms a contractile covering to the blood corpuscules; causing them to become more opaque, and giving them the figure of doubly concave lenses.

3. In the general capillary circulation, the oxy-protein surrounding the corpuscules is decomposed, the oxygen being used for dissolving old tissue, and the protein deposited to supply its place. The corpuscules lose their reflecting concave figure, and become more transparent by this change.

4. The difference of color between venous and arterial blood depends solely upon a physical difference in the surfaces of the corpuscules; being semi-opaque concave mirrors in the latter, and mere transparent convex bodies in the former.

5. Whatever alters the figure of the corpuscules, or gives blood the power of more powerfully reflecting light, at once alters its tint.

6. During respiration, the coloring matter of the blood undergoes no change, and indeed plays no part, either as a whole, or in regard to the iron which exists as an element in it.

7. Iron is not essential to the red color of blood corpuscules, although its presence is probably necessary for their formation and development.—*London Medical Gazette.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

3. *Albuminaria—Albuminous Nephritis—Inflammation of the Malpighian Corpuscles—Granular Disease of the Kidneys.* By Chas. Kidd, Esq.—This formidable derangement of the urinary system is chiefly characterized by the presence of a large quantity of albumen in the excretion—attended sometimes with blood-globules—a diminution in the normal proportion of urea and salts—a change in the specific gravity, generally diminished in the middle and final stages, and is usually attended or followed by dropsical effusion into the cellular tissue or serous cavities of the body.

Rayer, who has written at considerable length on this affection, describes six forms of organic lesion of the kidney—two of an acute character, and four of a subsequent chronic form of the disease not less intractable. As these various morbid alterations of the kidney are often met with in the same individual, and are all alike followed by an appearance of albumen in the urine, we shall only glance very briefly at his distinction. In the two first forms there is considerable tumefaction of the cortical substance, which exhibits numerous red spots similar to those visible on the surface corresponding to the glands of Malpighi, and which are highly injected with blood; hence Dr. Copland's peculiarly apposite name for the disease, which, perhaps, explains more than any of those applied to it by the other authors. In the third form the kidneys are still larger and heavier than in health, but do not present any red patches or morbid appearance. The fourth form, described by Dr. Bright as the granulated texture of the kidneys, is remarkable for the kidneys, especially their surfaces, becoming yellowish, dotted, and sometimes covered with minute spots of a milky white, covered with a yellowish hue, which are often elongated, and give very much the appearance as if small portions of milk-curd had been dropped irregularly on the surface of the kidney. They are imbedded in its cortical substance, and contrast strongly with the red hue of the tubular portion; the periphery of the kidney or the base of the cones is where the granular degeneration is usually most evident. The fifth form is marked by a further enlargement and degeneration of the Malpighian corpuscles; and in the sixth, the kidneys become indurated, irregular, and tuberculated.

Symptoms.—The acute form of the disease not unfrequently commences with shivering, soon followed by the general phenomena of fever. The urine may be little changed for a while, but is usually scanty and of a deep brown or reddish color, not unlike the washings of fresh meat. It is acid; its specific gravity is often above and seldom below the average standard, the proportion of the urea and salts in this particular stage being little affected. If allowed to rest it deposits filaments of a fibrinous character—a certain quantity of this principle, according to Rayer, being usually mixed with the excretion. The odor of the urine is very feeble urinous, at the end of about twenty hours exhaling a peculiar smell not unlike beef soup. Under the microscope it presents numerous blood globules, occasionally mucous globules, and always lamellæ of epithelium. Left to rest it exhibits a sediment composed almost entirely of these globules, epithelium and fibrinous flocculi; a deposite of uric acid seldom occurs, being more frequent in the chronic form of the disease. If pleuritis, pneumonia, or other inflammatory disease be present at the same time, the tendency will be to an increase of the specific gravity. Occasionally there is a certain degree of distress, and even of pain, in voiding the urine, owing to a sympathetic irritation of the bladder; but in a few rare instances, perhaps, to the difficult passage of fibrinous concretions along the urethra. There is almost generally a dull aching and sense of uneasy constriction or weight in the loins; these symptoms are sometimes greater on one side than on the other, but are never so severe as in simple inflammation of those organs. These symptoms have not long continued before signs of dropsical effusion make their appearance, in some cases with extraordinary rapidity: in short, this is one of the most constant and characteristic signs of the disease: it is first noticed as puffiness of the eyelids and face; at other times, it first affects the limbs, and extends to other parts of the body; occasionally erratic, it ceases in one part and makes its appearance in another: the skin is usually hot, and does not pit readily, except on strong pressure. In addition to these symptoms, the tongue is usually furred, the stomach is sick, and rejects everything, and occasionally also the patient is troubled with a cough. If blood be drawn, Rayer says, it will be found buffy, the serum occasionally milky; but this appearance is much more frequent in the chronic than in the acute form of the disease.

Causes.—Exposure of the body to cold or damp, or whatever has the effect of suddenly checking perspiration—as, for example, drinking a cold fluid while the skin is hot or sweating, is unquestionably the most frequent cause of the acute form of the malady. This is very remarkable in the form of the disease which usually follows scarlet fever, where albuminous urine comes on with great rapidity after incautious exposure to cold during the period of desquamation. It is to cold also that we can trace the increase and frequent relapses when it has even once been checked by judicious treatment; hence, also, its frequency amongst tradesmen subject to rapid changes of temperature—as bakers, workers in glass, and distilleries, &c.; want of cleanliness in the latter, according to Fourçault's researches, would seem to be even a more active cause.

Diagnosis.—The acute form of this derangement of the urinary system may easily be recognized by the albuminous, often sanguinolent, condition of the excretion, by the rapid formation of anasarca, and occasionally of dropsical effusion into some shut cavity.

Chemical properties and modes of detection.—The urine when first passed is generally slightly acid; in some few cases it is neutral; in fewer still, alkaline; its odor is very feebly urinous; specific gravity variable, oscillating about the healthy standard; the proportions of urea and salts very little altered; when exposed to heat it rapidly coagulates, often forming a solid opaque mass. The addition of nitric acid causes it also to coagulate, particularly if assisted by heat. If these tests exhibit little or no marks of albumen the prussiate of potash will often detect proportions of this principle very minute. The specimen under examination must first, however, be rendered slightly acid by a few drops of acetic acid, and the solution of the prussiate then added. If either serum or chyle be present in the fluid, an opalescence more or less marked will also follow the use of any of these tests.

Treatment.—As the chief causes of this variety of the affection are usually cold and moisture, a very primary object with the practitioner should be to prevent the impression of these agents on the system, especially among the poor, when, for obvious reasons, the precaution is more necessary. From the essential nature of the disease, it is very obvious that blood-letting will stand among the first modes of cure which deserve his attention. The detraction of blood, either from the arm, or by means of cupping from the loins, will prove of very essential service, the quantity necessary to be removed depending on the severity of the inflammation and the age of the patient. Emollient cataplasms over the loins have been used by some practitioners, but from their clumsiness are not very generally tried. The patient should be rigidly confined to bed as long as any febrile state of the system exists, and obliged to drink copious libations of demulcent and slightly diuretic fluids, though, as a general rule, the latter are not much to be persisted in. The warm bath, when it can be obtained, will be of the most essential use, and saline aperients (the sulph. magnesiæ, sulph. sodæ), avoiding, for obvious reasons, the tartrates and other vegetable salts. Where cerebral symptoms occur, as in a case given in the sequel, more active purgatives, as jalap, gamboge, scammony, will be necessary. If the stomach and bowels happen to be very irritable, with vomiting or diarrhœa, warm baths, small doses of opium, and the application of leeches to the arms, according to the French mode of practice, have been recommended. The food should be light and unirritating; jelly, gruel, and milk, will be perhaps amongst the most useful articles.

Chronic albuminous nephritis is incomparably more frequent than the acute form of the disease; it is often the consequence or result of the latter, but in by far the majority of instances it possesses the passive character from the commencement. In persons of a scrofulous constitution, observes Rayer, or whose health has been damaged by a former illness, the urine, which a short time previously exhibited no abnormal phenomena, I have not unfrequently seen assume all the characters observed in cases of chronic albuminous nephritis, with general dropsy. This change sometimes comes on without any appreciable cause; at other times it seems to be due to the influence of cold and damp. It is generally very obscure in its origin, and more frequently met with than the previously described form of the affection. The generality of the cases mentioned by Rayer were either work-people, whose occupations expose them to wet and cold, or persons living in damp, unhealthy dwellings. The intemperate use of spirituous liquors also increases the predisposition to this formidable malady, Doctor Christison, for instance, believing that three-fourths, or even a larger proportion of cases in Great Britain, are attributable to this practice. Rayer states that he had seen several cases in which pregnancy also appeared to have an influence in the production of this disease. Scrofula and syphilis are powerful predisposing causes, or indeed any affection of a cachectic tendency, especially in those who lead an intemperate life, and are much exposed to changes of weather. Pulmonary consumption has also a marked effect, as likewise organic disease of the heart, in producing the disease; it is an affection more frequent in males than females, and generally takes place between the twenty-eighth and fortieth years of life.

Properties of the urine.—The urine when recent is almost always acid; in some cases neutral or alkaline; it is in contradistinction to that last described, pale and not unfrequently opalescent, somewhat like whey, in which small flocculi have been dispersed; its odor is faint, and very different from that of the secretion in health; its specific gravity is usually below the normal standard, and in some cases very considerably so; under the microscope it exhibits epithelial scales of a whitish color, blended with mucous matter. The want of transparency is owing to the presence of a fatty matter, which may be removed by æther. Examined in a glass phial we notice on its surface and against the sides of the glass numerous bubbles. The action of the heat and nitric acid at once produces a coagulum, as in the last described variety. The yellow prussiate of potash reacts also in a similar manner.

These alterations of the urinary excretion may continue for some months before anasarca sets in, which it will be almost sure to do sooner or later. In the morning and evening signs of hydropic effusion, which the eye of the medical man cannot by possibility mistake, at length set in. In the morning the eyelids are observed to be puffy, and towards evening the ankles betray a similar tendency; the latter does not so readily subside by rest as that from disease of heart—a point of diagnosis which requires attention. A curious fact has frequently been mentioned by authors, by Nysten, Guibourt, and Dr. Barlow—namely, the presence of urea in the fluid thus deposited in the system, depending possibly on an imperfect action of the "Malpighian Corpuscles."

Diagnosis.—The diagnosis of this form of urinary derangement is not unattended with difficulty: however, when the excretion is found to be of low specific gravity, and contains albumen with only a small portion of urea and urates, the presence of this disease may be regarded as certain, especially if no disease of the heart exists at the same time. In diabetes there is the presence of sugar to guide us: in point of fact, there is, perhaps, not one symptom of albuminous nephritis, either acute or chronic, that is not occasionally met with in other maladies; and yet it is equally true that there is a series of symptoms which belongs only to this disease, and by which its existence may generally be detected.

Treatment.—In the chronic form of this disease our utmost efforts, perhaps, will only achieve a practical suspension of the morbid action. If we suspect any increased action of the vascular system of the kidney to exist, cupping-glasses will be found useful, at the same time recollecting that depletion, as a general rule, especially amongst the poor, ought to be avoided. A means which should never be neglected consists in the establishing of an issue in the loins, which will prove of very eminent service. Rayer has in several cases seen great benefit from the internal use of cantharides (ten or twelve drops of the tincture in an emulsion). Dr. Wells treated five cases of dropsy, in which the urine was coagulable, with large doses of the tincture of cantharides (from thirty to sixty drops in the course of the twenty-four hours). In three of these cases there was a marked amendment; in one the albumen disappeared. Rayer conceives it to be an uncertain remedy, and one that may prove dangerous in the hands of the inexperienced. Squills and digitalis have been used with some benefit, but are likely to disagree with the stomach. Purgatives, associated with diuretics, have been recommended by Dr. Prout. The nitrate of potash, with the tartrate, and spiritus æther nitrosus, will be found a very convenient mode of ordering these medicines. Blisters, if kept almost constantly applied, may do some good; but in general, like everything else which has been put forward with such vaunted powers over the disease, they will be found merely temporizing in their effects. The diet and regimen of the patient should be strictly antiphlogistic.

The treatment of these two modifications or stages of albuminuria is evidently of a different—nay, possibly, of an opposite character, suggesting for consideration an interesting question—namely, whether the sequence of the latter or chronic stages are invariable on the former or acute stage; and whether such complete structural disorganization as that now known as "Bright's Disease," originates in this way. This the opinions of the best observers of the disease would lead us to answer in the affirmative, clearly showing that this formidable malady is more under the control of the physician than is generally considered, by attacking it in its *earlier* stages. Rayer, however, says, that in individuals of a cachectic habit the disease assumes a chronic form from the commencement; and it is not a little remarkable, notwithstanding the very essential function of the system implicated, with what obscurity the first symptoms of the disease make themselves known. A dull obtuse pain in the region of the kidneys, often absent for a time, is the only thing recollected; no suspicion of anything of a dangerous character is entertained, and the fatal anasarca makes its appearance. The eyelids and face become puffed; not unfrequently the limbs are the parts first affected, which become tense and œdematous. If the affections of the kidney have not progressed further than that of hyperœmia, as very often occurs after scarlatina, there may be sickness of stomach and vomiting. The most prominent sign, and that for which we are usually consulted, however, is the anasarca, clearly indicating the grave necessity there exists for examining the urine in every case of this disease. Nor is the negative evidence afforded by the absence of albumen of less interest in the prognosis of this affection—nay, it is often of more value at the bedside, as it enables the physician, not unfrequently under circumstances the most unfavorable, to hold out a ray of comfort in cases almost beyond hope, and those only who are familiar with the sick, under such circumstances, can properly estimate what the cheering promise of the physician can effect—what masses of dark and evil-boding despondency will give way before one gleam of hope thus flung across the otherwise dark and despairing void.—*Dublin Medical Press*, *Jan.* 15.

4. *Treatment of Typhus.*—Dr. Davidson, in the *London and Edinburgh Medical Journal*, thus sums up the treatment of typhus fever. He considers that, as typhus is a disease which cannot be checked *in limine*, and is often tedious in its progress, causing great emaciation and exhaustion, measures which may vitally lessen the powers of life, such as bleeding, vomiting, and excessive sweating or purging, ought not to be used without very strong and special reasons. The ordinary measures may be the following:—Place the patient in a large, well-ventilated apartment, on a mattress, with few bed-clothes; let the head be shaved, and kept cool with an evaporating lotion, give a gentle purgative every second or third day, let the skin be bathed once or twice a day with tepid water, and this moy be accompanied with small doses of tartarized antimony, antimonial powder, or ipecacuana. The drink should be light, cooling, and slightly diuretic; and the diet nutritive, but light, and little liable to acescency. When there is a tendency to congestion in any organ, a little calomel, or hydrargyrum cum cretâ, may be combined with the purgative, or calomel with a small quantity of opium may be given every six or eight hours. The application of two or three leeches to the temple or nostrils is often useful in congestion of the brain, and also where there is intense head-ache, which is often the forerunner of delirium. Blisters are also often advantageous in such cases. Derangement of particular functions, or symptoms arising from idiosyncrasy of constitution, sometimes occur, and must be treated accordingly. Mercury in small doses is frequently useful in promoting several of the secretions, and in relieving the congestion of internal organs. Opium is injurious in a large proportion of cases, from its tendency to cause congestion in the head; but where diarrhœa is a symptom, it ought to be administered with a view to check the exhausting evacuations. Wines and other alcoholic liquors, as they contain both stimulant and alimentary elements, are the most to be relied on for supporting the strength, and are the least injurious. The pulse, taken along with the general symptoms of exhaustion, may be held to be the rule for its exhibition, both as to time and quantity. Ammonia, camphor, quinine, and other similar tonics, are not to be depended on in bad cases; and when exhibited together, frequently cause the patient to refuse both. When the disease is complicated with local affections in the head, chest, and abdomen, they must be treated on the same general principles as the idiopathic disease which they represent, with this important modification, that evacuations of all kinds must be employed more sparingly, and with much caution; and that even in these cases, if there be much prostration of strength, and a very weak pulse, wine must be administered, although more moderately than in the simple disease.

5. *Speculum Uteri.*—Dr. Warden, who has recently introduced prismatic specula, with the view to illuminate, and to reveal to observation, disease in the depths of the open cavities of the body, including the interior of all the hollow viscera of the pelvis with their outlet, has recently recommended, in the pages of the *London and Edinburgh Medical Journal*, a speculum uteri, consisting of an ivory tube, with a corresponding piston or plug, one side or portion of which tube is removable at pleasure, so that when the piece is taken out while the speculum is in the vagina, an extended lateral view of the passage in every part of its wall may be obtained.

6. *Icthyiosis Intra-Uterina.*—Dr. Smellie has published a case of this kind in the *London and Edinburgh Medical Journal.* The child was a male; the labor tedious, but not severe. The body was covered with a thick, smooth, and shining epidermis, fissured in many parts, more especially about the neck, in the axillæ groins, and popliteal spaces; all over the breasts, abdomen, and towards the lumbar region, there were large fissures, of a red and raw appearance; the arms and legs were somewhat œdematous, and had a pellucid appearance, from the horny nature of the epidermis; the fingers and toes, on which the rudiments of nails

were scarcely perceptible, resembled artificial appendages, rather than natural formations; the head was covered with hair, and the scalp was entirely free from fissures. There were some small fissures on the face, about the angles of the mouth, which was so much distended that the lips could not be brought together; near the external side of each ala nasi there was a horny excrescence in the epidermis, about the size of a hemp-seed, and also about the external canthus of both eyes, which were entirely concealed; the inner lining membrane of the eyelids protruded in the shape of a bloody tumor. The child lived seven days, and during that time, the epidermis was detached in large pieces, particularly where the fissures were most numerous, and the bloody tumor concealing the eyes gradually disappeared. The sufferings of the child, Dr. Smellie says, must have been very severe.—*Medical Times, Dec.* 21.

7. *Emplastrum Lithargyri Compositum.*—The efficacy of this plaster has been greatly aided by the plan of dissolving the galbanum and ammoniacum in alcohol, and then adding the evaporated solution, with the turpentine, to the other ingredients. The resins being more readily soluble in strong alcohol, the author justly condemns the prescription of Soubeiran, according to which weak alcohol is to be employed.—*Jahn: ibidem.*

8. *Form of Adhesive Plaster, peculiarly suitable for Bandaging Issues, &c.*

℞ Resin, burgund. ℥vj.
Cer. alb. puriss. ℥iv.
Terebinth. commun. ℥ij.
Sevi ovill. ℥j.

Liquata et colata agitantur, ut albescant, et in emplastra formentur. Sign. emplastr. adhæsiv.—*Dr. Sutro, in Medical Times, Dec.* 21, 1844.

9. *Poisoning by Hydrocyanic Acid.*—Mr. Godfrey has published, in the *Provincial Medical Journal*, a case of poisoning by prussic acid, which involves some points of interest, not from the symptoms presented, but from the time which must have elapsed, after the imbibition of the poison, before death occurred; and also on account of the various acts of volition performed by the suicide after he had swallowed the acid. It appears that, on the morning when he committed suicide, one of his daughters accompanied him to his office, where they were seen standing together; he sent her away with a message, and, after taking off his great-coat, proceeded to a room up stairs. After a short interval, he was seen to walk hastily out of the house, in the direction of the druggist's shop. He must have swallowed the poison—about half an ounce of prussic acid—when up stairs, for the bottle was found in the fire-place the following morning, the stopper on the table. It is presumed that he took the acid before placing the bottle on the fire, as no glass nor similar utensil was found in the room; he must then have gone to the head of the stairs, a distance of ten average paces, descended the stairs, seventeen in number, and proceeded to the druggist's shop, forty-five paces—realizing a total of fifty-five paces and seventeen stairs. He entered the shop in his usual manner, which was slow and steady: the druggist (a personal friend) asked him how he did? He replied in his usual tone of voice, "I want some more of that prussic acid." The druggist passed round the side and end of his counter to speak to him, and then perceived that he was in the act of placing his hands upon him, as if for support, his eyes being fixed upon him with a stare. The druggist said to him, "You have been taking the prussic acid?" to which no answer was made. He was then placed in a chair, but fell to the ground and died soon after Mr. Godfrey's arrival. Although the facts above detailed are highly interesting and important in a medico-legal point of view, inasmuch as the suicide might avail himself of this knowledge to conceal his act, or an ingenious counsel might take advantage of it to confuse the medical witness, and thus obtain the murderer's acquittal, yet it is somewhat imperfect in its details. A knowledge of the amount of anhydrous acid contained in the preparation taken by the suicide, would add greatly to the value of the facts as the character of the effect produced might then be more correctly estimated.

10.' *Succus Conei.*—Dr. Neligan has published in the *Dublin Journal of Medical Science*, a communication on the use of conium in the treatment of certain painful diseases, principally subacute and chronic rheumatic affections, particularly when attended with severe pain, neuralgia, and senile gangrene, and he has rarely found it fail in affording relief. The preparation which he has employed for the last two years, is made as follows:—Take any quantity of fresh hemlock leaves, express the juice in a tincture press, set it aside for forty-eight hours, pour off the clear supernatant liquor from the fecula and chlorophylle which it has deposited, and lastly add to it a fifth part, by measure, of rectified spirit. This preparation will keep well for two years, and its uniform strength, together with the facility with which the dose may be increased or diminished, gives it a decided advantage over either the extract, or the powder of the fruit or leaves. The best time for gathering the leaves is when they are all in full flower. Previously to submitting them to expression, the stalks should be picked out, and carefully rejected, the leafy part alone being used. The best extract Dr. Neligan has found to be prepared by submitting the expressed juice, obtained as above, to spontaneous evaporation; but even that, he says, soon loses all traces of conine. Hemlock, in medicinal doses, appears to Dr. Neligan to act by allaying nervous irritability, and diminishing muscular pain; the frequency and force of the heart's action are also diminished, but it does not produce the least tendency to drowsiness or sleep. When given for some time, or in rapidly increased doses, it causes a disagreeable sensation of dryness in the throat, with a feeling of constriction, and difficulty of swallowing, amounting to actual pain, requiring the medicine to be suspended for a few days, or else given in diminished doses.

PATHOLOGICAL, THERAPEUTICAL AND OPERATIVE SURGERY.

11. *On the Necessity of the Blepharoplastic Operation:—based on a Case of Removal of the Eyelid.* By M. Gerdy.—[It is well known, that much and varied ingenuity has been exercised in supplying the deficiency of the eyelids, connected with ectropium and other morbid states of the organ, and that this operation has been regarded as one of the most signal triumphs of modern surgery. M. Gerdy, from a recent case, has been led to question the necessity of this operation in any instance; and, assuredly, if he can remedy the melancholy deformity better, and without inflicting the attendant pain upon the patient, he will be entitled to a civic crown. He gives the particulars of his case, which will allow the reader to judge for himself.]

A husbandman of St. Ouen, aged 42, was admitted into "La Charité" of Paris, on the 8th February, 1844, where he had been a patient four years before. At that time he complained of a small ulcerating tumor, situate some two or three lines from the outer angle of the left eye, accompanied with an inversion of the ciliæ of both eyelids. The tumor was extirpated, and the edges of the upper and under eyelids were removed as far as the ciliary bulbs were compromised. This removal was attended with the result that was anticipated; the edges of the eyelids cicatrized, deprived of the eyelashes; lacrymation ceased, and the eye recovered in a way altogether satisfactory. It was different, however, with the tumor (which was one of *noli me tangere*), which reappeared in both eyelids, and demanded the complete removal of the upper eyelid, and the partial extirpation of the lower. This operation was performed on the 4th of April. M. Gerdy divided the external angle of the eyelids, then circumscribed the tumor of the upper lid, by a semicircular incision, with the concavity downwards, commencing at about a line and a half from the inner angle, so avoiding the superior punctum, and finishing at the external angle. The operator removed the whole portion included in the incision, with the exception of a small part of the mucous membrane, which he reserved near the outer angle, for the purpose of folding over the margin of the upper wound, at the spot corresponding to the outer angle, to prevent the adhesion of the two parts, and that it might extend itself over the inner aspect of the lid. The partial excision of the lower lid was performed in the usual manner.

After this, M. G., that he might ascertain the necessity of replacing the upper eyelid by means of a new one from the neighboring healthy skin, desired the patient to close the eye upon which he had just operated, and this was effected thoroughly by the corrugation of the eyebrows. This fact demonstrated that the operation by blepharoplastie, which had been contemplated, was unnecessary, and that the patient might be spared much suffering. All thoughts of it therefore were abandoned.

Compresses dipped in cold water were applied for some days subsequent to the operation, after which a moderate suppuration supervened. Large granulations appeared on the edges of the mucous membrane, and of the skin, which were repressed by means of the nitrate of silver, and gradually they formed a thin cicatrized tissue, even, shining, and solid; and which constituted the margin of the eyelid. As early as the 20th of the month, the result of the operation could be foreseen. At the first glance there did not appear much difference in the appearance of the two eyes. The left eye could be quite shut, by a somewhat forced winking, the effect of which was to lower the eyebrow and subjacent skin. If the winking was slight, the two eyelids of the left eye were not quite in contact, a fissure nearly a line broad remaining. The cornea, notwithstanding, was completely protected, as the eye was invariably, at the moment, carried upward, and the sclerotica alone appeared in the *rima palpebrarum.* Lacrymation, and all the other unpleasant symptoms, were thus completely removed.

We conclude this interesting notice with M. Gerdy's own observations. This case, he remarks, demonstrates that we should not despair of the powers of nature in the severest lesions of the eyelids, and should not hastily determine to abstract from the forehead, the temple, or cheek, an ignoble strip of skin, to assign to it a more noble part of the physiognomy. The eyelids are organs so fine and delicate, so regular and beautiful in their relation to the eye: they are so pliant, mobile, and rapid in their movements—so powerful in expression in shutting and opening the eye, that it is difficult adequately to replace them by a slip of skin procured from their neighborhood. Hence, what is obtained is an ungraceful and nameless something, which we can scarcely call an eyelid—a something which greatly changes the physiognomy, impedes the vision of the patient, shocks the eye of the beholder, and more resembles a shapeless plaster which disfigures, than an eyelid fitted to embellish and protect the eye, and assist in the performance of its functions. Assuredly, were we only to consider the deformity, impotence, and other imperfections of these pretended eyelids which we with pride exhibit, when we have ourselves made them, with a kind of paternal fondness, and still more were we to consider the extreme pain which their formation occasions, we should for ever discard blepharoplastie from our operative surgery. We have no wish, however, for one unworthy member to proscribe the whole family of *plastics.* By the parts which autoplastic operations more or less completely adjust, with the help of needles, pins, and threads, waxed and unwaxed, blepharoplastie as much resembles tailors' work as an operation in surgery; moreover, by the sudden contrast of the color of several parts that are approximated, it puts us in mind of a patched garment; but though it somewhat humbles the art, yet being of extreme utility, it ought gratefully to be preserved.—*Journ. de Méd. et de Chirurg.*, Oct., 1844.

OBSTETRICS AND DISEASES OF FEMALES.

12. *On Detaching the Placenta in cases of Placenta Prævia.* By Dr. RADFORD, M. D.—Since my observation on galvanism in uterine hæmorrhage, published in the *Provincial Medical and Surgical Journal*, I have had letters from many gentlemen, inquiring whether I confined the practice to detaching the placenta in cases of placenta prævia to those of exhaustion alone. In order, then, to supersede the necessity of writing to each correspondent, I make the

reply through the same channel. In my paper I stated that I had detached the placenta in a case which occurred in 1819, but did not then state that it was unattended by exhaustion. From this and other cases then alluded to, I conclude, that on a complete separation of the placenta, the hæmorrhage is immediately and completely suppressed, provided the uterus is in a condition to so far contract, as to force down the head with the placenta upon the uterine openings. By this practice it may be said that the life of the child is sacrificed: but this will not always happen. We find from hospital and individual reports, that the child is usually dead when the case has been treated by the present recognized means.

In nearly all the cases which I have collected and referred to in my paper, of expulsion of the placenta by the natural efforts, we find that the mother recovered; and when this fortunate event did not happen, it depended upon the serious impression made upon the vital powers before the placenta was completely detached.

It may also be stated that uterine phlebitis takes place more frequently in cases of placenta prævia, when the ordinary practice is adopted, than we observe in the same number of cases of accidental hæmorrhage. This result, in the opinion of the writer, arises from the contusion and slight lacerations which are consequent upon a forced delivery.

From the above statement, I consider I am justified in recommending a modified practice; but I shall not enter fully into the details of the plan, as this brief communication will not allow of it.

First. Then, as neither delivery, nor detaching the placenta, ought ever to be attempted until the cervix and os uteri will safely allow the introduction of the hand, rest, the application of cold, but, above all, the use of the plug, must never be omitted in cases where they are respectively required.

Secondly. If there are unequivocal signs of the child's death, the placenta is to be completely detached, and the membranes are to be ruptured. The case is then to be left to the natural efforts, provided there be sufficient uterine energy; if otherwise, the ordinary means are to be used, and, in addition, galvanism.

Thirdly. When the narrow pelvis exists in connection with placenta prævia, the practice is to detach the placenta and to remove it, then to perforate the head as soon as the condition of the parts allows, and to extract it by means of the crotchet.

Fourthly. When the os uteri is partially dilated, and dilatable so as to allow the easy introduction of the hand, when the membranes are ruptured, and strong uterine contraction exists, the practice is to detach the placenta completely.

Fifthly. In all cases of exhaustion, as already referred to in my paper, the practice is to draw off the liquor amnii, by perforating the placenta, as then recommended, then to detach completely this organ, and apply galvanism.

Sixthly. In all cases of partial presentation of the placenta, the artificial rupture of the membranes will generally be found sufficient to arrest the hœmorrhage, but if that should prove ineffectual, then we must apply galvanism.

The practice of detaching and removing the placenta was adopted by some of the older writers; and as I have mentioned in my paper "On galvanism applied to the treatment of uterine hæmorrage," I detached this organ in the year 1819, although it was not my custom to do so.

Early in October, I received a letter from my respected friend, Professor Simpson, in which he stated he removed the placenta in a case of unavoidable hæmorrhage. He "had the placenta on a plate two hours before the baby was born." The mother recovered. Dr. Simpson has collected a great number of cases of expulsion of the placenta before the child, and has come to the conclusion, that the practice of its removal, in some cf ases oplacenta prævia, is calculated to save the parent's life.

I am glad to have my views on this most important subject corroborated by an authority so deservedly esteemed as Dr. Simpson, to whom I am disposed to award every degree of merit which really belongs to him, as having by observation and research accumulated materials to bring him to the same conclusion at which I arrived myself. Although I feel thus gratified in having the authority of Dr. Simpson in support of this practice, I must confess that it is to be the late

Mr. Kinder Wood, who for many years was an active and deservedly respected colleague of mine at the Lying-in Hospital, that the merit (if there be any) is due for first, as a modern obstetrician adopting this practice, and also recommending it in his lectures. The practice I allude to, is that of detaching and removing the placenta in cases of unavoidable hæmorrhage, attended with exhaustion. In the foregoing observations I have ventured to recommend this practice as applicable to cases in which there exist different conditions, convinced that there are many mothers sacrificed by the rash manœuvres consequent on a forced and indiscriminate delivery.—*Provincial Medical and Surgical Journal.*

MISCELLANEA.

13. *Society and the Doctors.*—A surgeon is sent for to attend a sick person—we now simply state a case occurring only the other day: in the discharge of his professional duties he is ready to go—in the discharge of his duty to himself and family, he inquires who is to pay him. The reply to this reasonable, and, in a man who gets his livelihood by an arduous profession, natural inquiry, is, imprecations and abusive language: the surgeon declines to attend the patient, and the patient unfortunately dies, Society taking no more trouble than to order a coroner's inquest. The inquest is held; the surgeon states the facts above stated; he states, moreover, that he frequently was knocked up to attend paupers, the children of society; to exercise his humanity, skill and attention upon them, without getting a farthing; that he has himself knocked up the butcher to get materials for making beef-tea for the patient, and was refused, with butcher-like expressions; that he lived by his profession; that his time was his means of life; that, in this particular case, he was preparing to attend the patient, when he was revolted by the abuse of those who solicited his aid.

Society, represented by the coroner, or his deputy, we forget which, waxed exceedingly indignant. The poor practitioner was informed, with ludicrous gravity, "That if he got no money, he should have found sufficient recompense in the esteem of his fellow-men;" that he should be ready, at all hours of the day and night, to do Society's business, in the way of his profession, for nothing. "Humanity," said the coroner, "is a great thing." The jury, among whom might or might not have been the butcher who refused materials for beef-tea, became humane and benevolent, as it cost them nothing, and "fully concurred in the observations of the coroner."

Now, let us see whether, in his conduct toward this poor medical man, Society did not, on this occasion, exhibit himself a most unfeeling, as well as an impudent fellow.

A man determines to invest his time and money in obtaining the diploma of the College of Surgeons. Very well. Does Society educate him for nothing? Does Society feed, clothe and lodge him while walking the hospitals, attending lectures or undergoing the disgusting details of the dissecting-room, for nothing? On the contrary, Society takes a thousand Protean shapes to extract money from the pockets of this very man, whom it victimizes afterwards, for not running like a lamp-lighter to do its business gratis.

In the shape of a Professor, Society dives into the pockets of the student for fees for lectures, demonstrations and hospital attendance; in the shape of a landlady and tradespeople, it makes him pay through the nose for everything he has, and, sometimes, for things he has not had; in the shape of a college, it makes him pay for his diploma before it admits him to examination.

Nor has Society done with him then.

When he sets up an establishment, Society expects that he will maintain the station of a gentleman; that he will pay his tailor, his butcher, his baker, his shoemaker, his druggist; that he will conduct himself in an honest, straightforward manner, paying everybody his due; and having laid down this law for him, Society, when, through its parsimony, inhumanity or neglect, an outcast perishes in its streets, empanels a coroner's jury of this very tailor, butcher, shoemaker, baker, to victimize this doctor, who is so inhuman as to pay him; this hard-hearted practitioner who, expecting to pay, has the audacity to expect to be paid!

But we are told by the coroner, who, by the way, was paid for *his* services, that humanity is a great thing—a sacred duty—paramount to considerations of profit and loss. Very good—very fine. But let us extend this principle. Are coroners, judges, lawyers, and coroners' juries, to have the benefit of it?

Humanity, we presume, is not limited to physicking paupers for nothing; humanity is not merely a medical virtue, though Society seems to think so.

The prompt administration of justice is humanity; yet what judge on the bench administers justice for nothing? It is humanity to investigate the causes of sudden or suspicious deaths; yet did any man ever hear of any coroner who sat upon any jury since the time of Alfred, without being paid his fees and his mileage? To feed the hungry, to clothe the naked, to visit widows and orphans in their afflictions, is humanity; yet we hear of no tailor, butcher, baker, who refuses to give bread, beef and clothes, for nothing, being told by coroners' juries that, "if he gets no money, he gains the esteem of his fellow-workmen."

Will the esteem of his fellow-workmen feed the poor doctor, or clothe his wife and children, or pay house-rent, or taxes, or appear on his frugal board in the shape of a leg of mutton and trimmings? Will the esteem of his fellow-workmen preserve him from rusty clothes or an empty stomach; from a distress for rent, or from the insolvent court?

Let him go to the workhouse with the esteem of his fellow-workmen in his pocket, and he will be set to break stones or pick oakum, just the same as if his fellow-workmen did not esteem him in the least; and when he dies, after a life spent in gaining the esteem of his fellow-workmen, by running after sick paupers for nothing, let his widow go before a police magistrate for relief, and she will be lucky, indeed, if the esteem of her late husband's fellow-men enables her to take change out of a sovereign.

Medical men are fair game—their profession is a noble, humane, and liberal profession; therefore, be sure, they are expected to be noble, humane and liberal enough never to expect payment; they are advertised for in the same way as tallow-candles and scrags of mutton, and for the same use—the use of the parish poor; therefore, be sure, they must be gentlemen, disdaining payment.

They have been, and still are, a profession foolishly charitable, and criminally benevolent, to the injury of themselves, their families and their fellows; therefore, Society takes them at their word; if they work for nothing, they get no thanks; and if they don't work for nothing, they are rebuked by juries of butchers, bakers and tailors, who glory in the chance of sitting, once in their lives, in judgment upon a gentleman.—*London Med. Gaz.*, January, 1845, from *Young England*, *No.* 2.

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14. *Accidents resulting from the injection of Sulphuric Acid into the Rectum.* A man 45 years of age was admitted, in the month of May, 1844, into the Medical Wards of the Hôtel-Dieu Annexée; his complaint was a very trifling one, and, amongst other things prescribed, a simple injection of flax-seed tea was directed—by a most surprising error on the part of the nurse, the syringe was filled with sulphuric acid instead of the decoction of flax-seed, and the enema administered. Fortunately for the patient, the nurse appears to have been unskilful in the use of the instrument, and directed its nozzle towards the parietes of the rectum, against which he made the injection instead of into the gut, consequently the liquid flowed back through the anus as soon as it was introduced, and was distributed over the bed and thighs of the patient. The suffering was great, but the injection was continued, and the error not discovered until the syringe had been emptied. Violent pain ensued, fever set in, and large eschars formed about the anus and on the thighs; blood was passed per anum during a considerable time, and the patient continued to suffer during two months, at the expiration of which period he was discharged. Since then he had constantly experienced difficulty in passing his fæces, and suffered much pain in the rectum; a stercoral fistula formed in the thigh and he determined to enter the Hôtel-Dieu. M. Chassaignac (temporarily charged with the care of the surgical patients) found

on examination that an enormous mass of indolent tissue had formed around the anus and thighs—the cicatrix on the left thigh, which was the most extensive, being the size of the palm of the hand ; all the cicatrices were slightly yellow, smooth, soft, and moveable, except in the immediate vicinity of the anus, where they were very hard, firm, rough, and of a conical shape. The orifice of the rectum, and for the distance of three quarters of an inch upwards, was very much contracted and unyielding, so that the end of the finger could not be introduced. The fistulary opening on the thigh was about three inches distant from the anus, and communicated with the gut above the stricture. The patient was pale, weak, and apparently in bad health. M. Chassaignac had not yet determined whether to operate in the case or not. None of the general symptoms of poisoning by sulphuric acid followed its injection into the rectum.—*Annales de Thérapeutique.*

15. *Mercurial Salivation.*—The following case would appear to favor the supposition that the peculiar action of mercury upon the gums is only manifested in cases where the teeth are present ; a female patient in the wards of Bérard the younger, at the Hospital of la Pitié, was subjected to the use of mercury, by friction and otherwise, until her system was completely saturated with it. This woman had lost all her teeth and had only two stumps remaining, and the local mercurial action about the mouth was only manifested in the vicinity of these stumps, the remainder of the gums being perfectly healthy and unaffected.—*Abeille Medicale.*

16. *Nasal Calculi.*—Monsieur Blandin extracted from the inferior meatus of the nasal fossæ, a calculous production which is to be deposited in Dupuytren's Museum. This stone is similar in appearance to a mulberry calculus ; it is very hard, and would seem to be composed of carbonate, phosphate, and oxalate of lime. M. Blandin, who has on other occasions removed similar productions, is of opinion that they are formed by hardened mucosities which eventually become petrified.—*Abeille Medicale.*

17. *Death of Dr. Ribes.*—Dr. Ribes, ex-Surgeon in the Hôtel des Invalides, at Paris, a cotemporary of Larrey, and one of the oldest surgeons of the Imperial army, died at Paris on the 21st of February, at the age of 80 years. Dr. R. was distinguished as a capable and experienced surgeon, and is universally regretted by the French faculty, of which he was an acknowledged ornament.

18. *Excision of the Spleen.*—Dr. Berthet recently communicated to the Royal Academy of Medicine the following case of excision of the spleen :

A man whilst fighting was wounded in the left side with a large knife ; Dr. Berthet was sent for eight days after the accident ; he found on examination that the spleen formed a large tumor which exhaled a fœtid odor. He determined at once to excise it, which was accordingly done. The patient recovered entirely, and lived thirteen years and a half afterwards ; his digestion was generally good. He died of pneumonia, and at the autopsy, only a very small portion of the spleen, the size of a hazel nut was found to have been left behind after the operation ; this portion was applied against the external parietes of the stomach.

19. *Serious wound of the Brain without lesion of the intelligence.*—The following very singular and interesting case is related by Dr. Blaquiere:

In 1842, a child, at Mexico, was playing with a large pistol, when his brother, aged 4½ years, ran before him ; the little fellow fired the pistol, and the ball traversed his brother's brain, entering at one temple and coming out at the other, and then burying itself in the plastering of the room ; the size of the ball was 17 to the pound. The following was the condition of the young patient when examined *twenty days* after the accident, in the presence of a number of medical men : He was seated on his bed and engaged in playing with his toys ; he appeared to be very gay and happy, except when his wounds were dressed, and then he was cross, owing rather to the restraint to which he was subjected, than to any pain which he experienced; he appeared to be in the full enjoyment of all his intellectual faculties, which were much developed (children in the climate of Mexico are usually precocious); his memory was perfect; judgment good; sleep slightly disturbed, owing probably to want of exercise; corporeal functions healthy; character and disposition the same as before the accident; appetite good, and he frequently asked for articles which it was not thought prudent to allow him.

When the dressings were removed, the eyelids were found ecchymosed, and the points of entrance and exit of the ball were observed to be situated at about an inch and a half perpendicularly above the outer commissure of each eye, and following a line transverse to the vertical axis of the head. A large probe was introduced into each wound and penetrated to the distance of 20 lines—it might in all probability have been made to traverse the entire distance, but this was sufficient to establish the fact that the ball had not deviated in its course, and run around the bones of the cranium.

The patient continued in the same condition for six days longer, when the scene changed, and unequivocal symptoms of inflammation set in, which caused a fatal termination on the 29*th day* after the accident.

At the autopsy, the wound made by the entrance of the ball was seen to be smaller and of a more regular shape than that of the opposite side. The anterior portion of both hemispheres was found to have been traversed by the bullet; the membranes of the brain were inflamed; the ventricles were uninjured; the whole of the space along which the ball had passed was in a state of suppuration. —*Journal des Connaissances Medico-Chirurgicales.*

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20. *Poisoning by Cyanide of Potassium.*—Dr. Letheby, Lecturer of Chemistry at the Medical School of the London Hospital, has recently undertaken a series of experiments to ascertain the relative poisonous properties of the cyanides, and to determine whether any antidote to their action can be suggested, and in the last number of the *Medical Gazette* he refers briefly to some of these. Cyanide of potassium (he remarks) is the most virulent and active of all the compounds into which cyanogen enters. It is, moreover, a salt which is very readily procured, inasmuch as it is kept by almost every druggist for the extemporaneous manufacture of prussic acid:—

"Five grains of this salt dissolved in two drachms of water, and given to a middle-sized dog, occasioned death in about seven minutes, producing all the symptoms of poisoning by hydrocyanic acid; and when it was given in larger doses, its action became the more speedy. For instance, in one experiment I gave half a drachm in solution to a spaniel, and before I had time to release the animal its effects had commenced; in thirteen seconds the dog fell, and in thirty-two it lay apparently dead. There were from that time no further convulsions; reflex action had for the most part ceased: the eye could be touched without the lid winking, and the sphincters had relaxed; yet notwithstanding this, the heart continued to beat for six minutes, and in many instances I have known it pulsate between eight and twelve minutes after life had apparently terminated.

"The constant effects of these poisons, when given to strong and healthy animals, were an apparent giddiness, a staggering walk, an effort to vomit; the animal then generally fell, was convulsed, foamed at the mouth, made great efforts at respiration, shrieked, and died with a strong convulsive action of all the muscles of the body; the eyes stared; the limbs were extended, and the bladder and rectum emptied. When, however, the animal had been previously exhausted, either by bleeding or want of food, death took place for the most part quietly, without much struggle or cry."

Dr. Letheby observes that in cases of poisoning by the cyanides, there is always a smell of prussic acid in the stomach, whether the body be opened directly or some time after death. This, he presumes, is owing to the action of the gastric juice upon the salt, which in this way becomes decomposed, and hydrocyanic acid liberated.

2.

American Medical Intelligence.

Obituary Notice.—Samuel White was born in Coventry, Conn., February 23d, 1777, and died at Hudson, N. Y., February 10th, 1845, in the 68th year of his age.

He pursued the study of Physic and Surgery, with Dr. Philip Turner, of Norwich, Conn., a very distinguished surgeon of his day.

Dr. White manifested an early desire to be qualified for the surgical branch of the profession. His teacher, observing his ambition and good natural qualifications, and perceiving that he had laid the foundation of a good education, gave encouragement to his wishes, and invited him as an assistant in his important operations.

That these opportunities were improved, his well deserved fame as a surgeon, founded upon some of the most difficult and important operations, will abundantly testify. His professional career commenced in Hudson, N.Y., in 1797, and was continued in the same place until his death.

His practice soon became very extensive, in the different departments of Surgery, Medicine and Midwifery.

All the important and capital operations were repeatedly performed by him with great judgment and skill. In truth, he was proud of his profession and remarkably fond of it. In addition to the basis of a high-toned religious and moral character, he possessed a clear and vigorous intellect, naturally strong, but highly improved by reflection and cultivation. Neat and dexterous in his manipulations, he was sagacious, bold and energetic, when the emergency of the case required decision of character. Active and industrious in his habits, he pursued the practice of his profession with unsurpassed perseverance. Honorable in his intercourse with his professional brethren, he never allowed himself to malign a competitor in business. If he could not speak well of others he was careful how he spoke ill of them.

In the year 1806, when but twenty-nine years of age, he performed an operation which gave him considerable notoriety. It was the operation of Enterotomy, for the extraction of a teaspoon from the intestines near the ileo-cœcal valve. The case is reported in full in the New York Medical Repository of that period. Dr. Wright Post, with whom Dr. White was on very friendly terms, always quoted the case, as being among the first to show the safety and practicability of cutting through the peritoneum.

The next case which added much to his reputation, was the successful removal of the parotid gland. This operation was performed in 1808, and is the first on record in any country.

Both of these operations are alluded to by Dr. Reese in his edition of Samuel Cooper's Surgical Dictionary, under the heads of Enterotomy and Parotid Gland.

In the management of Dislocations and Fractures his diagnosis was always good, and his treatment skilful. In operative midwifery he was not excelled, and his practice resembled that of the late Dr. Gooch. During the year 1828, in conjunction with his son, Dr. S. P. White, he was appointed Lecturer on Surgery and Obstetrics, in the Berkshire Medical Institution. In the year 1829, he received the honorary degree of M. D. from Williams' College, Mass.

The year afterwards, in conjunction with his son Dr. G. H. White, he established, under unparalleled personal efforts, a private institution at Hudson for the medical and moral treatment of the Insane. This valuable institution has ever since continued, and is now in successful operation; although it has had to contend with the State monopoly at Utica.

The practice of taking pay patients in our State Institutions is an act of injustice to our private institutions, and should be remedied by our Legislature. It has also become a question, whether the pauper, in our public institutions, is treated with as much kindness as the pay patient.

Dr. White having served as a delegate from the Columbia County Med. Society at Albany for the usual period, was elected a permanent member. In 1843, he was elected President of the State Medical Society. At the next annual meeting he delivered his address on insanity, and declined being a candidate for renomination. During the summer of 1844, he was much gratified with a proposition to unite with other physicians in forming an "American Association for the benefit of the Insane." He was honored with the office of vice-president after it was organized; and appointed a member of several of the committees, that were selected to present at the next meeting important reports. To have performed this last sacred trust, and faithfully to have furnished instruction for our future progress, would have been to him an adequate reward. On his return, however, to Philadelphia, he was admonished that nature could not withstand the pressure which it had been taxed to endure. "The energies of his vigorous constitution gave way." His sleep became disturbed; his organs of digestion became impaired; symptoms of atrophy supervened; and he died in the hope of a glorious immortality.

The Medical Profession in the City of New York.—Our respected contemporary, the London Medical Gazette, has the following singular remarks in relation to the state of the Medical Profession in this city. We are obliged to believe that they were published without the editor's knowledge, for no one can suppose that such statements would be endorsed by the editor of one of the most influential Metropolitan Medical Journals:

> "The pernicious consequences of the no-restriction system are amply demonstrated in the American States of the North. In the city of New York, for instance, where any shoe-black may arrogate the title and functions of a doctor of physic, things have come to such a pass, that scarcely a practitioner of honorable feeling is found willing to enter the lists with the disgraceful competitors he must needs encounter. There, of a truth, the profession is in a most degraded condition. In fact, with the exception of some four or five of established reputation, a great proportion of the practitioners of that populous place are ignorant and boastful pretenders, alike guiltless of education and of principle. We have been informed by an intelligent eye-witness, that the sittings of its Medical Society more resembled a bear-garden, than a convention of members of a liberal art. The ordinary qualification to ensure practice among the mass of the community is to establish an apothecary's shop in some frequented street, and then to puff off a nostrum or two. By the help of such appliances, impudence and effrontery rarely fail to succeed in gaining the credulity of the public, and ousting

the regular practitioner. We are told that an empiric of this stamp realized a much larger fortune than ever fell to the lot of any member of the faculty in that city. As a natural result of so debased a state of things, the adulteration of drugs is carried on to an unbounded extent. Every article in the materia medica of any value is notoriously sophisticated.* In the southern states of the union, namely, Carolina, Georgia and Louisiana, where some collegiate control exists, the profession is, we believe, altogether on a better footing."

Now we have, of licensed, regular practitioners of medicine in this city, about 800 individuals, to a population of some 400,000 persons. Of these, it appears that there are only "four or five" physicians of "established reputation," a great proportion of the rest being "ignorant and boastful pretenders." These statements, we find, are made to prove "the pernicious consequences of the *no-restriction system*," but very unfortunately for the writer's argument; for the no-restriction system has never been adopted in this state, till the last session of the Legislature, when the restrictive laws were repealed. There certainly has not been time enough, since then, to work such utter degradation and ruin to the profession, as the London editor would have his readers believe. Suppose we should affirm that England was the true paradise of quacks, notwithstanding the restrictive system has always been strictly maintained—that the revenue from quack medicines, which are taxed but 8d. per cent., amounted, in 1831, to £39,084; in 1832, to £44,379; in 1833, to £38,375; in 1834, to £31,007; in 1835, to £30,516; in 1836, to £31,376, and so on, averaging at least £30,000 per annum up to the present time, and showing that nearly $2,000,000 worth of quack medicines are purchased by the English people every year—and that government lends its sanction to empiricism by granting patents for secret medicines: suppose we positively declare that the profession in Great Britain is "overrun by under-bred, half-educated hucksters," quoting scores of cases where regular physicians volunteer attendance and medicines at the rate of 30 *pence a year*, to each patient (Med. Gazette, Feb. 14, 1845)—that the whole country is "drug-damned"—that, "in no land in the civilized world, is the science of pharmacy in so low a condition, as in that of Great Britain," and that "nowhere is the systematic sophistication of drugs, chemicals and pharmaceutical preparations, carried on so extensively and with so much impunity," as in that country. Should we say all this, and much more to the same effect, we might, perhaps, be accused of risking assertions that we could not prove—had we not, fortunately, the authority of the *same* Gazette for each and every one of these statements! The difference, then, in the two cases, is, that, for our charges there is unquestionable authority—for the other, so far as it appears, none at all. We trust that the Gazette may turn out to be as wide of the facts in the one case, as we know it to be in the other.

Progress of Medical Jurisprudence in the United States.—We were not aware until we read the charge of his Honor, Judge Edmonds, of the astonishing advance made in the science of Medical Jurisprudence, within the last few years. It now seems that medical men are expected to tell from an examination of the charred remains, and in all probability, from the ashes of an incinerated body, not only whether the death was the result of accident, or preconcerted violence; but also, whether it was caused by poisoning or asphyxia, and even what kind of asphyxia, whether by drowning, strangulation, or suffocation. We supposed that under the most favorable circumstances where marks of burning appear, the following were the only conclusions, on this subject, warranted by existing facts, viz: 1. That when we discover marks of vesication with serous effusion, or a line of redness, or both, about a burnt part of the body, we are justified in saying that the burn must have occurred during life. 2. That when these appearances are not met with, it by no means follows that the burn was not vital; the affirmative evidence derived from such appearances being much stronger than the negative. But all of us it seems, with Christison, Guy, Taylor, and Beck, have been laboring under a mistake in this matter. We are expected to decide peremptorily, whether the burn was inflicted before or after death; and whether death (to use the language of the Judge) "was caused by suffocation, by violence before death, or whether the violence was inflicted after death,"—and this too, let it be recollected, when the body has been consumed, with the exception of a few shapeless relics!

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* Salts of morphia have been met with in commerce, containing ninety-nine and a half in the hundred of foreign matter; nor is it by any means uncommon for a practitioner to vaunt his administering calomel in the dose of a hundred grains and upwards.

But without further comment at present, we give that part of the Judge's charge relating to this subject, together with the reply of the physicians, and leave our readers to draw their own conclusion:

Extract from a Charge of Judge Edmonds, as reported in the N. Y. Herald.—"Was the death here by violence? Unfortunately, very much of the difficulty which we now encounter at this stage of the case arises from the very inadequate manner in which the physicians discharged their duty. Had they made a *judicious, active, and scientific* post-mortem examination, they could have increased in a great extent the evidence of the guilt, or of the innocence of the prisoner. And it is greatly to be regretted that this was not the case. They did not even make a memorandum of the examination, such as it was. They made no inquiry whether there had been strangulation or suffocation—whether poison or some narcotic drug had been administered—even their examination with respect to the marks of violence was imperfect and unsatisfactory. They have left us therefore in that state of uncertainty in regard to the cause of death that is very much to be regretted both by you and me.

"Under all these disadvantages, we are to inquire into the cause of that death. The only conclusion that the physicians come to is, that the wound on the broken arm bears the result of violence before death. This is all the certain evidence we have. They leave it for you to determine whether the other marks of violence had been inflicted before or after death. Whether these witnesses could have relieved the doubt, which now surrounds the ligatures, found on the arm of the deceased, I know not. But if the ligatures were put on before death, it becomes a very important inquiry, what they were put on for? If after death, the question is equally important, not only in reference to the corpus delicti, but in reference to the moral circumstances that would fix the guilt upon some person somewhere. So in reference to the child's skull, all of which was gone except that piece, a corner, if I may so call it—how it came to be preserved with the scalp, and blood upon it, we are left entirely in the dark, and you are to determine from the evidence, whether the child came to its death by suffocation, by violence before death, or whether this violence, of which some evidence is given, was inflicted after death had occurred. On all these points the physicians give us no satisfactory solution of the questions which they present. Then comes the evidence as to screams being heard and the appearance of blood. A number of the witnesses have given testimony on this latter point, and it is to be regretted that the prosecution did not produce here those articles on which blood was represented as having been discovered. A chemical analysis, which would have shown beyond doubt whether that was blood or not, would have been satisfactory."

Statement of the Physicians (Harrison, Clark and Edie).—"On looking over the charge of his Honor, Judge Edmonds, to the jury, in the case of Mrs. Bodine, as reported in one of the public Journals, we, the undersigned, physicians referred to in said charge, feel ourselves called upon, both in self-defence and in discharge of our duty to the public, to correct *some* of the misstatements which were therein made, in order to counteract, in a measure, the erroneous impressions which might be formed from a perusal thereof.

" What Judge Edmonds precisely meant by a 'judicious,' 'active' and 'scientific examination of the bodies,' we do not pretend to understand in any manner in which those terms can be applied to the case of Mrs. Houseman or her child, for the fact must be well known to every one who was present at the trial, and attended to the testimony, or read it in the newspapers—that the bodies, and particularly the parts which must necessarily have been the objects of such examination, were so much injured and so far consumed by the fire as to preclude altogether the possibility of any investigation like the one contemplated by his Honor. It must be obvious, therefore, that Judge Edmonds was wholly mistaken in his conceptions of the condition in which the bodies were found, and we leave it to him to determine how far this was the result of inattention on his part to our evidence, while under examination, or of forgetfulness of it afterwards.

" The idea that the physicians could and ought to have distinguished between death by strangulation or suffocation, and to have inquired whether it might not have resulted from narcotics or other poisons, is preposterous and absurd, when the actual condition of the bodies is kept in view. By what process, we would ask, however *judicious* and scientific, could the bones of the head (which were entirely consumed) be restored for examination, or the brain itself, which was partially destroyed, and the remainder granulated and reduced to the appearance of curd, and its fluid matter entirely dissipated, become the subject of investigation ? By what means (we shall be extremely gratified if the learned judge will inform us) could the muscular substance of the neck, with the air passages, which were consumed to the vertebræ, be restored for inspection to have enabled us to determine the question on which he so wisely suggests we ought to have decided? Would the state of the lungs have assisted us in resolving the question between strangulation and suffocation, when they were so completely disorganized by the action of the fire ? And, finally, could a further examination of the stomach have been deemed of much importance, as its organization and texture was found to have been broken up and its contents poured out and mingled with those of the adjacent viscera ? Every physician knows that, even under the most favorable circumstances, where suspicion has fixed upon the article used, and the organ remains entire, a chemical analysis is tedious, complicated and uncertain in its results; how much more so then, and indeed how entirely impracticable, was it in a case like this ?

" The facts alluded to above were clearly stated by us before the court, or if any of them were withheld, it was in consequence of intimation from the Judge, that he had heard enough and that it was unnecessary to traverse so frequently the same ground. Yet the Judge heedlessly charges the jury in reference to this testimony in such a manner as to convey the idea to them, and to the public, that these examinations and investigations ought to have been so conducted as to have increased, to a great extent, the evidence of the guilt or innocence of the prisoner.

" From counsel ardently engaged in the cause of a client, physicians and other witnesses may often experience the grossest injustice, and be obliged to submit to the severest strictures on their conduct and their discretion. In such cases they may find an apology often in the honesty of the purpose which leads to the offence. But the case is widely different on the part of his honor the Judge. From him justice is expected to all, and he is bound by as strong an obligation of duty to the witness on the stand, as to the parties in the cause.

" We have thus endeavored to counteract in some small degree the very erroneous impressions which the charge of Judge Edmonds was calculated to produce on the public mind, and can only say, in conclusion, that we made our examination with the honest intention of throwing all the light on the dark and mysterious subject, of which it was then susceptible ; and that we gave our testimony with frankness and sincerity, and with a full desire, on our part, to make it clear and intelligible, even to his Honor the Judge."

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